EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	5	"251567".ap.	US-PGPUB; USPAT	AND	ON	2007/01/11 08:33
L2	2	"532273".ap.	US-PGPUB; USPAT	AND	ON	2007/01/11 09:45
L3	6	"821642".ap.	US-PGPUB; USPAT	AND	ON	2007/01/11 09:54
L4	88	549/48.ccls.	US-PGPUB; USPAT	AND	ON	2007/01/11 09:55
L5	137	514/437.ccls.	US-PGPUB; USPAT	AND	ON	2007/01/11 09:55
L6	6	l4 and l5	US-PGPUB; USPAT	AND	ON	2007/01/11 09:56
L7	173	549/461.ccls.	US-PGPUB; USPAT	AND	ON	2007/01/11 09:56
L8	424	514/455.ccls.	US-PGPUB; USPAT	AND	ON	2007/01/11 09:56
L9	1	l7 and l8	US-PGPUB; USPAT	AND	ON	2007/01/11 09:56
S1	0	(("6031122"|"6359163"|"6392078"|"RE37337").PN.").PN.	US-PGPUB; USPAT	OR	OFF	2005/12/01 06:40
S2	4	("6031122"|"6359163"|"6392078"|"RE37337").PN.	US-PGPUB; USPAT	OR	ON	2005/12/01 06:49
S3	0	588/277.icls	US-PGPUB; USPAT	OR	ON	2005/12/01 06:50
S4	0	588/277.ICLS	US-PGPUB; USPAT	OR	ON	2005/12/01 06:50
S5	1	588/277.ICLS.	US-PGPUB; USPAT	OR	ON	2005/12/01 06:50
S6	0	588/277ICLS.	US-PGPUB; USPAT	OR	ON	2005/12/01 06:50
S7	1	588/277.ICLS.	US-PGPUB; USPAT	OR	ON	2005/12/01 06:51
S8	0	588/277.cCLS.	US-PGPUB; USPAT	OR	ON	2005/12/01 06:51
S9	0	588/277.CCLS.	US-PGPUB; USPAT	OR	ON	2005/12/01 06:52
S10	274	558/277.CCLS.	US-PGPUB; USPAT	OR	ON	2005/12/01 06:53
S11	208	558/277.iCLS.	US-PGPUB; USPAT	OR	ON	2005/12/01 06:55
S12	0	(RYU-yong OR Gelbein-Abraham).IN.	US-PGPUB; USPAT	OR	ON	2005/12/01 06:59

EAST Search History

S13	0	RYU-yong.IN. OR Gelbein-Abraham.IN.	US-PGPUB; USPAT	OR	ON	2005/12/01 06:59
S14	0	RYU-yong.IN.	US-PGPUB; USPAT	OR	ON	2005/12/01 06:59
S15	1565	RYU.IN.	US-PGPUB; USPAT	OR	ON	2005/12/01 07:01
S16	0	RYU-y.IN.	US-PGPUB; USPAT	OR	ON	2005/12/01 07:00
S17	1565	RYU.IN.	US-PGPUB; USPAT	OR	ON	2005/12/01 07:00
S18	0	Gelbein-Abraham.IN.	US-PGPUB; USPAT	OR	ON	2005/12/01 07:00
S19	55	Gelbein.IN.	US-PGPUB; USPAT	OR	ON	2005/12/01 07:01
S20	4	S17 AND S19	US-PGPUB; USPAT	OR	ON	2005/12/01 07:02
S21	0	S20 <"20030312"	US-PGPUB; USPAT	AND	ON	2005/12/01 07:05
S22	2	S20 AND @pd<="20030312"	US-PGPUB; USPAT	AND	ON	2005/12/01 07:14
S23	0	S20 AND @pd<="2003"	US-PGPUB; USPAT	AND	ON	2005/12/01 07:15
S24	2	S20 AND @pd<="20030312"	US-PGPUB; USPAT	AND	ON	2005/12/01 07:15
S25	3	S20 AND @py<="2003"	US-PGPUB; USPAT	AND	ON	2005/12/01 07:20
S26	0	"ryu-yong.in"	US-PGPUB; USPAT	AND	ON	2005/12/01 07:21
S27	0	"ryu.in"	US-PGPUB; USPAT	AND	ON	2005/12/01 07:22
S28	1565	ryu.IN.	US-PGPUB; USPAT	AND	ON	2005/12/01 07:22
S29	1565	ryu.iN.	US-PGPUB; USPAT	AND	ON	2005/12/01 07:22
S30	1565	ryu.in.	US-PGPUB; USPAT	AND	ON	2005/12/01 07:22
S31	0	ryu-yong.in.	US-PGPUB; USPAT	AND	ON	2005/12/01 07:22
S32	1565	ryu.in.	US-PGPUB; USPAT	AND	ON	2005/12/01 07:23
S33	162	yong.in. S32	US-PGPUB; USPAT	AND	ON	2005/12/01 07:23
S34	25	j.in. AND S33	US-PGPUB; USPAT	AND	ON	2005/12/01 07:24

EAST Search History

S35	18	S34 AND @ad<="20030312"	US-PGPUB; USPAT	AND	ON	2005/12/01 07:26
S36	4	("6031122"|"6359163"|"6392078"|"RE37337").PN.	US-PGPUB; USPAT	OR	ON	2005/12/02 12:25
S37	3	("4222944"|"3759948"|"5814651").PN.	US-PGPUB; USPAT	OR	ON	2005/12/02 13:14
S38	0	("WO2004089940").PN.	USPAT; USOCR	OR	OFF	2005/12/02 13:17
S39	0	("WO2004089940").PN.	US-PGPUB; USPAT; USOCR; DERWENT	OR	OFF	2005/12/02 13:18
S40	0	("104821642").PN.	US-PGPUB; USPAT	OR	OFF	2005/12/04 07:17
S41	0	("104821642.pn").PN.	US-PGPUB; USPAT	OR	OFF	2005/12/04 07:17
S42	0	("10821642.pn").PN.	US-PGPUB; USPAT	OR	OFF	2005/12/04 07:17
S43	1	"10821642"	US-PGPUB; USPAT	OR	ON	2005/12/04 07:17
S44	0	WO037805	US-PGPUB; USPAT	OR	ON	2005/12/04 12:35
S45	0	WO2004/037805	US-PGPUB; USPAT	OR	ON	2005/12/04 12:35
S46	512015	WO 2004/037805	US-PGPUB; USPAT	OR	ON	2005/12/04 12:35
S47	1	60/519,967	US-PGPUB; USPAT	AND	ON	2005/12/05 15:20
S48	0	459/461.ccls.	US-PGPUB; USPAT	AND	ON	2005/12/06 08:03
S49	172	549/461.ccls.	US-PGPUB; USPAT	AND	ON	2005/12/06 08:04
S50	100	549/461.ccls. AND @ad<="20031113"	US-PGPUB; USPAT	AND	ON	2005/12/06 08:06
S51	50	S50 AND dibenzofuran	US-PGPUB; USPAT	AND	ON	2005/12/06 08:11
S52	0	S51 AND "548".ccls.	US-PGPUB; USPAT	AND	ON	2005/12/06 08:12
S53	5	S51 AND 548/444.ccls.	US-PGPUB; USPAT	AND	ON	2005/12/06 08:16
S54	5	S51 AND 548/444.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	ON	2005/12/06 08:16

EAST Search History

S55	1	"3846553".pn.	US-PGPUB; USPAT	OR	ON	2006/05/11 11:14
S56	1	"532273".ap.	US-PGPUB; USPAT	OR	ON	2006/05/11 11:16
S57	0	"532273".an.	US-PGPUB; USPAT	OR	ON	2006/05/11 11:16
S58	1	"532273".ap.	US-PGPUB; USPAT	OR	ON	2006/05/11 11:31
S59	1	"6110962".pn.	US-PGPUB; USPAT	OR	ON	2006/05/11 11:31
S60	3	("3759948"|"3846553"|"6110962"). PN.	US-PGPUB; USPAT	AND	ON	2006/05/22 14:53
S61	58	549/461.icls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2006/05/25 08:50
S62	250	549/461.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2006/05/25 08:50
S63	266	546/284.7.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2006/05/25 08:50
S64	334	546/281.1.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2006/05/25 08:51
S65	289	549/43.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2006/05/25 08:51
S66	375	544/375.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2006/05/25 08:52
S67	333	544/153.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2006/05/25 08:52

EAST Search History

S68	0	S61 and S63	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2006/05/25 08:53
S69	1	S61 and S64	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2006/05/25 08:59
S70	2	S61 and S66	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2006/05/25 08:58
S71	1	S61 and S67	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2006/05/25 08:53
S72	0	S62 and S63	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2006/05/25 08:57
S73	1	S62 and S64	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2006/05/25 08:59
S74	14	S62 and S66	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2006/05/25 08:59
S75	21	S62 and S67	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	AND	ON	2006/05/25 09:02
S76	0	"03377"	JPO	AND	ON	2006/08/15 06:04
S77	0	"03377.ap"	JPO	AND	ON	2006/08/15 06:05
S78	0	"3377"	JPO	AND	ON	2006/08/15 06:05
S79	0	"014156"	JPO	AND	ON	2006/08/15 06:05
S80	1	jp63014156	JPO	AND	ON	2006/08/15 06:06
S81	1	"63014156"	JPO	AND	ON	2006/08/15 06:06

10/821,642-K-1 RCE closest art search 1-11-2007

$%^STN;HighlightOn=;HighlightOff=;

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PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

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NEWS 4	OCT 30	CHEMLIST enhanced with new search and display field
NEWS 5	NOV 03	JAPIO enhanced with IPC 8 features and functionality
NEWS 6	NOV 10	CA/CAplus F-Term thesaurus enhanced
NEWS 7	NOV 10	STN Express with Discover! free maintenance release Version 8.01c now available
NEWS 8	NOV 20	CAS Registry Number crossover limit increased to 300,000 in additional databases
NEWS 9	NOV 20	CA/CAplus to MARPAT accession number crossover limit increased to 50,000
NEWS 10	DEC 01	CAS REGISTRY updated with new ambiguity codes
NEWS 11	DEC 11	CAS REGISTRY chemical nomenclature enhanced
NEWS 12	DEC 14	WPIDS/WPINDEX/WPIX manual codes updated
NEWS 13	DEC 14	GBFULL and FRFULL enhanced with IPC 8 features and functionality
NEWS 14	DEC 18	CA/CAplus pre-1967 chemical substance index entries enhanced with preparation role
NEWS 15	DEC 18	CA/CAplus patent kind codes updated
NEWS 16	DEC 18	MARPAT to CA/CAplus accession number crossover limit increased to 50,000
NEWS 17	DEC 18	MEDLINE updated in preparation for 2007 reload
NEWS 18	DEC 27	CA/CAplus enhanced with more pre-1907 records
NEWS 19	JAN 08	CHEMLIST enhanced with New Zealand Inventory of Chemicals

NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS LOGIN	Welcome Banner and News Items
NEWS IPC8	For general information regarding STN implementation of IPC 8
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FILE 'HOME' ENTERED AT 07:49:35 ON 11 JAN 2007

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 07:50:00 ON 11 JAN 2007
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TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

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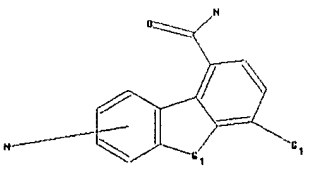
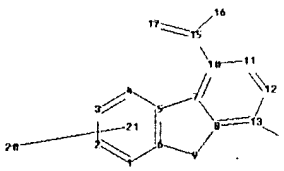
http://www.cas.org/ONLINE/UG/regprops.html

=>
Uploading C:\Documents and Settings\ychu\Desktop\Case\10821642\10821642b.str





chain nodes :

15 16 17 18 20
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13
chain bonds :
10-15 13-18 15-16 15-17
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 7-10 8-9 8-13 10-11 11-12 12-13

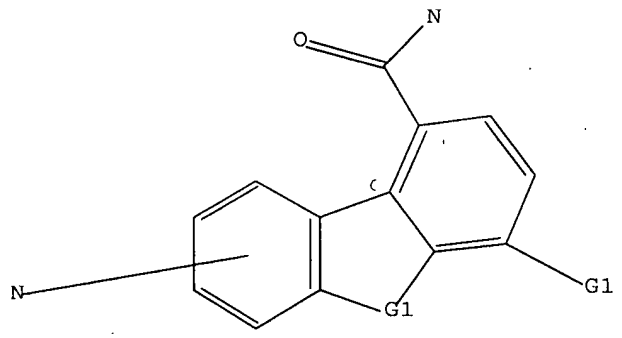
exact/norm bonds :
5-7 6-9 8-9 10-15 13-18 15-16 15-17
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-10 8-13 10-11 11-12 12-13

G1:O,S

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 15:CLASS 16:CLASS 17:CLASS 18:Atom 20:CLASS 21:Atom

L1 STRUCTURE UPLOADED

=> d
L1 HAS NO ANSWERS
L1 STR



G1 O,S

Structure attributes must be viewed using STN Express query preparation.

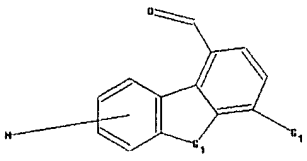
=> s l1
SAMPLE SEARCH INITIATED 07:50:43 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 131 TO ITERATE

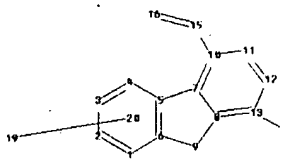
100.0% PROCESSED 131 ITERATIONS 4 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 1934 TO 3306
PROJECTED ANSWERS: 4 TO 200

L2 4 SEA SSS SAM L1

=>
Uploading C:\Documents and Settings\ychu\Desktop\Case\10821642\10821642c.str





chain nodes :
15 16 17 19
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13
chain bonds :
10-15 13-17 15-16
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 7-10 8-9 8-13 10-11 11-12 12-13

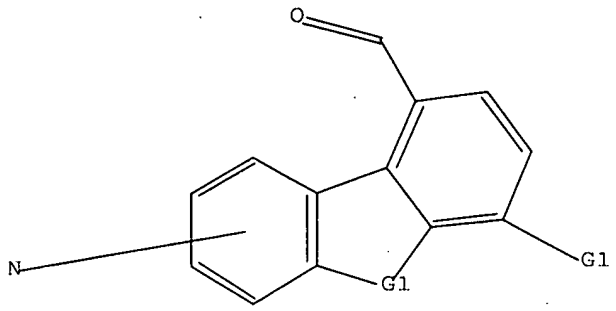
exact/norm bonds :
5-7 6-9 8-9 10-15 13-17 15-16
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-10 8-13 10-11 11-12 12-13

G1:O,S

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 15:CLASS 16:CLASS 17:Atom 19:CLASS 20:Atom

L3 STRUCTURE UPLOADED

=> d
L3 HAS NO ANSWERS
L3 STR



G1 O,S

Structure attributes must be viewed using STN Express query preparation.

```
=> s l3
SAMPLE SEARCH INITIATED 07:52:02 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      417 TO ITERATE

100.0% PROCESSED      417 ITERATIONS                          4 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:         7115 TO     9565
PROJECTED ANSWERS:               4 TO      200

L4             4 SEA SSS SAM L3

=>
Uploading C:\Documents and Settings\ychu\Desktop\Case\10821642\10821642d.str
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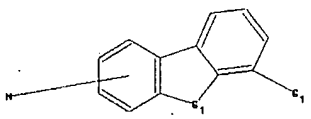
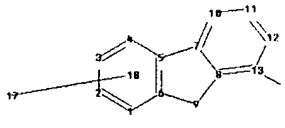




```
chain nodes :
15 17
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13
chain bonds :
13-15
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 7-10 8-9 8-13 10-11 11-12 12-13
```

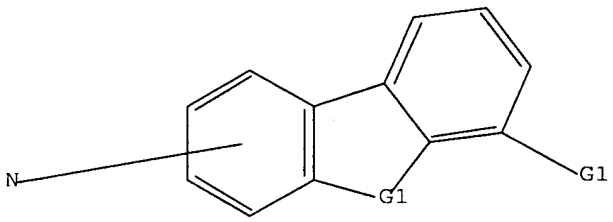
exact/norm bonds :
5-7 6-9 8-9 13-15
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-10 8-13 10-11 11-12 12-13

G1:O,S

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 15:Atom 17:CLASS 18:Atom

L5 STRUCTURE UPLOADED

=> d
L5 HAS NO ANSWERS
L5 STR



G1 O,S

Structure attributes must be viewed using STN Express query preparation.

=> s l5
SAMPLE SEARCH INITIATED 07:52:44 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 7093 TO ITERATE

28.2% PROCESSED 2000 ITERATIONS 2 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 136811 TO 146909
PROJECTED ANSWERS: 2 TO 300

L6 2 SEA SSS SAM L5

=> s l5 full
FULL SEARCH INITIATED 07:52:59 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 142525 TO ITERATE

100.0% PROCESSED 142525 ITERATIONS 164 ANSWERS

SEARCH TIME: 00.00.03

L7 164 SEA SSS FUL L5

=> file caplus
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 173.90 174.11

FILE 'CAPLUS' ENTERED AT 07:53:10 ON 11 JAN 2007
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FILE COVERS 1907 - 11 Jan 2007 VOL 146 ISS 3
FILE LAST UPDATED: 10 Jan 2007 (20070110/ED)

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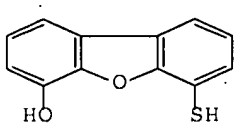
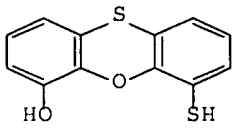
=> s l7
L8 23 L7

=> d ibib abs 15-23

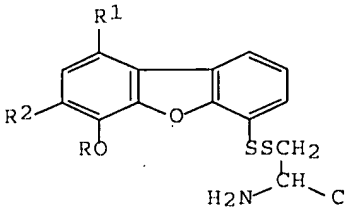
L8 ANSWER 15 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1986:207666 CAPLUS Full-text
DOCUMENT NUMBER: 104:207666
TITLE: Peptide synthesis by prior thiol capture. 2. Design of templates for intramolecular O,N-acyl transfer. 4,6-Disubstituted dibenzofurans as optimal spacing elements
AUTHOR(S): Kemp, D. S.; Galakatos, Nicholas G.; Bowen, Benjamin; Tan, Kenneth
CORPORATE SOURCE: Dep. Chem., Massachusetts Inst. Technol., Cambridge, MA, 02139, USA
SOURCE: Journal of Organic Chemistry (1986), 51(10), 1829-38
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 104:207666
GI



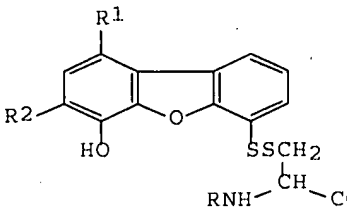
I



II



III

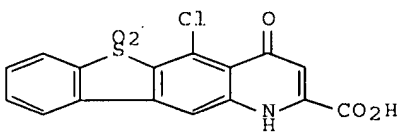


IV

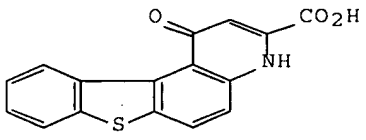
AB A central feature of the strategy for amide bond formation by prior thiol capture is an intramol. acyl transfer across a template that links the phenolic ester function of one peptide with an unsym. disulfide involving the side chain of the N-terminal cysteine residue of a second peptide. The structures of 4-hydroxy-6-mercaptodibenzofuran (I) and 4-hydroxy-6-mercaptophenoxythiin (II) were established by 1H NMR spectra of deuterated dibenzofuran and phenoxythiin derivs. On the basis of the criterion of effective molarity, a dibenzofuran template for intramol. acyl transfer is approx. 2 orders of magnitude more efficient than a phenoxythiin. An effective local concn. of ca 5 M and a Hammett .rho. value of 2.6 is obsd. for the intramol. acyl-transfer reaction of O-acyl dibenzofuran derivs. III (R = Ac, PhCH2O2C-Ala; R1 = H, Cl, Br, NO2; R2 = H, Cl; R3 = C-terminal group) to the corresponding N-acyl derivs. IV.

L8 ANSWER 16 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1979:66597 CAPLUS Full-text
DOCUMENT NUMBER: 90:66597
TITLE: Antiallergic activity of tetracyclic derivatives of quinoline-2-carboxylic acid. 2. Some benzothienoquinolinecarboxylic acids
AUTHOR(S): Wade, James J.; Erickson, Edward H.; Hegel, Ramon F.; Lappi, Larry R.; Rice, Thomas K.
CORPORATE SOURCE: Riker Lab., 3M Co., St. Paul, MN, USA
SOURCE: Journal of Medicinal Chemistry (1978), 21(9), 941-8
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I



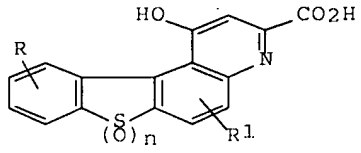
II

AB Benzothienoquinolinecarboxylic acids and their esters (>90 compds.) were prepd. and tested as potential antiallergic agents. Their antianaphylactic activity was comparable to that of di-Na cromoglycate. I and II were approx. 8 times more active than di-Na chromoglycate in rat passive cutaneous anaphylaxis assay.

L8 ANSWER 17 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1977:423247 CAPLUS Full-text
DOCUMENT NUMBER: 87:23247
TITLE: 1-Benzothieno[3,2-f]quinolinecarboxylic acids
INVENTOR(S): Lappi, Larry R.; Erickson, Edward H.
PATENT ASSIGNEE(S): Riker Laboratories, Inc., USA
SOURCE: Ger. Offen., 36 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2638081	A1	19770310	DE 1976-2638081	19760824
US 4018780	A	19770419	US 1975-607626	19750825
JP 52027799	A	19770302	JP 1976-101027	19760824
FR 2321887	A1	19770325	FR 1976-25645	19760824
FR 2321887	B1	19781117		
GB 1563112	A	19800319	GB 1976-35227	19760824

PRIORITY APPLN. INFO.: US 1975-607626 A 19750825
GI



I

AB 1-Hydroxy[1]benzothieno[3,2-f]quinoline-3-carboxylic acids (I; R = e.g. 10-F, 8-Cl, 10-Br, 10-Me, 10-MeO, H, 8-MeO, 9-Me; R1 = e.g. H, 6-Cl, 5-MeO, 6-MeO; n = 0, 1, 2), useful as allergy inhibitors, are prepd. by reaction of 2-aminodibenzothiophenes with MeO2CC.tplbond.CCO2Me (II), cyclization of the resulting di-Me (dibenzothiophene-2-ylamino)fumarates and hydrolysis of the Me esters. Thus, reaction of II with 2-amino-8-fluorodibenzothiophene in MeOH at room temp. 16 h gives di-Me [(8-fluorodibenzothiophene-2-yl)amino]fumarate which on heating 5 min at 240.degree. in Ph2O gives the Me ester which is hydrolyzed to give I (R = 10-F, R1 = H, n = 0).

L8 ANSWER 18 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1966:59731 CAPLUS Full-text
DOCUMENT NUMBER: 64:59731
ORIGINAL REFERENCE NO.: 64:11148g-h
TITLE: Potentially chemotherapeutic dibenzofurans

AUTHOR(S): Onyiriuka, S. O.; Rees, A. H.
CORPORATE SOURCE: Univ. Ibadan, Nigeria
SOURCE: J. Chem. Soc., Org. (1966), (5), 504-6
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB A number of new disubstituted dibenzofurans (I and II) were prepd. for evaluation of their chemotherapy, and for use in further syntheses.

L8 ANSWER 19 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1966:59730 CAPLUS Full-text
DOCUMENT NUMBER: 64:59730
ORIGINAL REFERENCE NO.: 64:11148f-g
TITLE: The constituents of Cacalia decomposita. Structures of maturin, maturinin, maturone, and maturinone
AUTHOR(S): Correa, J.; Romo, J.
CORPORATE SOURCE: Univ. Nacl. Autonoma, Mexico, D.F.
SOURCE: Tetrahedron (1966), 22(2), 685-91
CODEN: TETRAB; ISSN: 0040-4020
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB The structures of maturin (I), maturnin (II), maturone (III), and maturinone (IV) have been established as furonaphthalene derivatives, closely related to cacalol (V) and cacalone (VI).

L8 ANSWER 20 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1962:457092 CAPLUS Full-text
DOCUMENT NUMBER: 57:57092
ORIGINAL REFERENCE NO.: 57:11415i,11416a-b
TITLE: Neomycin-treated cellulosic textile materials
PATENT ASSIGNEE(S): American Cyanamid Co.
SOURCE: 8 pp.; Addn. to Brit. 788,968, (CA 52, 10601b)
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 900803		19620711	GB 1959-36877	19591030
PRIORITY APPLN. INFO.:			US	19581103

AB A durable antibacterial finish can be applied to cellulosic textiles by treatment with neomycin B, neomycin C, and salts of the neomycin complex. The yellowness or dullness which usually appears upon laundring of neomycin (I)-treated fabricscan be counteracted by application of optical bleaching agents. Agents applicable to cellulosic textiles are acyldiaminostilbenes, triazinyldiaminostilbenes, and acyldiaminodibenzothiophene dioxides, all of which contain sulfonic acid groups. Other brighteners which can be used are the all-purpose types, such as benzimadazoles and triazoles. The treating soln. preferably a pad bath, contg. both I and the bleaching agent can be prepd. without copptn. of the ingredients by addn. of an alk. agent, such as NaOH or KOH, to the soln. The fabric is padded through the bath and dried at 150-350.degree.F. The concn. of I m the soln. can be varied within wide limits depending upon the intended use. When applied by padding, the soln. should contain 0.001-1% by wt. of I, and the same concn. of bleaching agent, preferably 0.01-0.05% of the dry wt. of the material.

L8 ANSWER 21 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1951:40188 CAPLUS Full-text
DOCUMENT NUMBER: 45:40188
ORIGINAL REFERENCE NO.: 45:6845c-g
TITLE: Relation between constitution and tinctorial properties of substantive azoic dyes
AUTHOR(S): Krepelka, V.; Rais, J.
CORPORATE SOURCE: Prague Polytech. Inst.
SOURCE: Collection of Czechoslovak Chemical Communications (1950), 15, 412-32
CODEN: CCCCAK; ISSN: 0010-0765
DOCUMENT TYPE: Journal
LANGUAGE: French
AB The substantivity (fs) and tinctorial power (v) to cotton of the following azoic dyestuffs have been detd. Main Component, .lambda.max.m.mu., emax., fs, v; aniline, 480, 38,275, 17.6, 0.64; 4,4'-diaminodiphenylamine, 525, 44,850, 36.55, 1.36; 4,4'-diaminodiphenylmethane, 497, 34,500, 22.45, 0.834; benzidine, 527.5, 40,350, 39.0, 1.42; 3,3'-dichlorobenzidine, 520, 47,000, 33.4, 1.33; benzidine-3,3'-disulfonic acid, 515, 94,000, 25.0, 1.17; benzidine-2,2'-disulfonic acid, 502.5, 78,600, 10.54, 0.474; benzidine sulfone, 540, 32,930, 19.9, 0.787; benzidine sulfone-3,3'-disulfonic acid, 540, 55,850, 14.31, 0.712; diamino-2,2'-stilbenedisulfonic acid, 532, 82,800, 42.1, 2.015; p-phenylenediamine (monoazo deriv.), 510, 15,610, 25.25, 0.96; p-phenylenediamine (bisazo deriv.), 515, 43,300, 32.2, 1.05; p,p'-diaminodiphenylurea, 491, 40,200, 33.15, 1.302; 2,2'-dinitro-4,4'-diaminodiphenyl-methane, 497, 27,350, 12.2, 0.508; .omicron.-aminophenol, 500, 25,600, 20.6, 0.785; 3,3'-diamino-4,4'-dihydroxydiphenyl-methane, 495, 42,600, 26.75, 1.035; 3-aminosalicylic acid, 505, 34,500, 13.5, 0.604; 3,3'-diamino-5,5'-methylenedisalicylic acid, 502, 64,300, 18.55, 0.84; The dyestuffs were prepd. by coupling the diazotized main component with 6-amino-1-naphthol-3-sulfonic acid. Substantivities were assigned numerical values and were detd. spectrophotometrically, titration with Ti salts, and colorimetrically. The following general rules were proposed for a bisazo dyestuff to be substantive: (1) the mol. wt. must be fairly high, (2) at least 2 auxochromes must be linked by a long chain of conjugated double bonds (at least 8), (3) free rotation of aromatic nuclei must be possible (thus dyestuffs from benzidine-2,2'-disulfonic acid are acid dyestuffs which dye wool), (4) usually the dyestuff should not be a deriv. of a p,p'-diamine, (5) neg. substituents decrease the substantivity.

L8 ANSWER 22 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1940:15386 CAPLUS Full-text
DOCUMENT NUMBER: 34:15386
ORIGINAL REFERENCE NO.: 34:2368g-i,2369a-i
TITLE: Dibenzofuran. XV. 1,4- and 1,4,6-Derivatives
AUTHOR(S): Gilman, Henry; Cheney, Lee C.
SOURCE: Journal of the American Chemical Society (1939), 61, 3149-56
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Incidental to studies concerned with the bridging of the 1- and 9-positions in dibenzofuran types, series of 1,4- and 1,4,6-derivs. have been synthesized. In these compds. the 4- and 4,6-substituents are strong o,p-directors. 4-Hydroxy-6-methoxydibenzofuran (I) with HBr in AcOH gives 91.6% of 4,6-dihydroxydibenzofuran (II), m. 200-2.degree.. II (0.115 mol), 0.345 mol of Me2SO4, 39 mL. of 60% KOH and Me2CO give a nearly quant. yield of 4,6-dimethoxydibenzofuran (III), m. 128-9.degree.; picrate, deep yellow, m. 161-

2.degree.. III and AcCl with AlCl3 in PhNO2 give 60% of the 1-Ac deriv. (IV), m. 178.5-9.5.degree.. The oxime of IV, m. 203-4.degree., with PCl5 in C6H6 gives 76.4% of 1-acetamino-4,6- dimethoxydibenzofuran, m. 244-5.degree.; hydrolysis gives the HCl salt, m. 286-7.degree., of the 1-NH2 deriv. (V) of III, m. 162-2.5.degree.. I (4.28 g.) in 15 mL. 15% KOH and 385 mL. H2O, treated with the PhN2Cl from 0.02 mol PhNH2 at 3.degree., gives 56.6% of 1-benzeneazo-4-hydroxy-6- methoxydibenzofuran, rust-colored, m. 175.degree.; Me2SO4 and KOH in Me2CO give 88% of the 4,6-di-MeO deriv., deep orange, m. 170.degree.; redn. gives 32.8% of V. 4-Methoxydibenzofuran (VI) and 10% excess of (COCl)2 in PhNO2, treated with 10% excess AlCl3 at 0.degree. and allowed to stand at room temp. for 28 h., give a mixt. of 3 products; extn. of the amorphous product with 5% NaOH gives 4-methoxy-1-dibenzofurancarboxylic acid, m. 276-7.degree.; the alkali-insol. solid, extd. with AcOH, gives 18% of bis(4-methoxy-1-dibenzofuryl) ketone, m. 234.degree.; the AcOH-insol. portion is bi(4-methoxy-1-dibenzofuroyl), pale yellow, m. 329.degree., 34.6% yield. VI and ClCH2COCl with AlCl3 in PhNO2 give 53.2% of the 1-chloroacetyl deriv., m. 165-6.degree.; ClCOCO2Et gives 43% of the 1-ethoxalyl deriv., m. 113.degree.; hydrolysis with 15% NaOH gives 4-methoxy-1-dibenzofuryl-.alpha.-oxoacetic acid, pale yellow, m. 187.degree. (semicarbazone, m. 211.5-12.degree. (decompn.)). III (4.56 g.) and (COCl)2 with AlCl3 in PhNO2 give 0.37 g. 4,6-dimechoxy-1- dibenzofurancarboxylic acid, m. 297-8.degree.; 10.4% of bis(4,6-dimethoxy-1-benzofuryl) ketone, m. 254-5.degree., sol. in AcOH, and 60.7% of bi(4,6-dimethoxy-1-dibenzofuroyl), pale yellow, m. above 300.degree., insol. in AcOH. 3-Hydroxy-4-methoxydibenzofuran (VII) and HBr in AcOH give 88% of 3,4-dihydroxydibenzofuran (VIII), m. 164-4.5.degree.; di-Ac deriv., m. 104-5.degree.. VII and Me2SO4 with 10% NaOH give 81% of the 3,4-di-Me ether (IX), m. 60-1.degree.. IX and AcCl give 55.5% of the 1-Ac deriv. (X), m. 90.5-1.degree.. The oxime of X, m. 156-7.degree., is rearranged by PCl5 in C6H6 to give 94% of 1-acetamino-3,4-dimethoxydibenzofuran, m. 156-7.degree.; hydrolysis gives 1-amino-3,4-dimethoxydibenzofuran, m. 162.5-3.degree., which also results in 10% yield on heating the 1-Br deriv. of IX with concd. NH4OH and CuBr for 14.5 h. at 220-30.degree.. III (22.8 g.) in 600 mL. AcOH and 100 mL. of M Br soln. in AcOH give 73% of the 1-Br deriv., m. 152.degree., and 12% of a product m. 144-7.degree.; III (3 g.) and 52.7 mL. of a 0.5 M Br-AcOH soln. give 74% of the 1,9-di-Br deriv. (XI), m. 167-8.degree.. II gives a nearly quant. yield of the 1,9-di-Br deriv., m. 239-40.degree. (decompn.); Me2SO4 gives XI. I gives 58.6% of the 1,3-di-Br deriv., m. 177-8.degree.; Me2SO4 gives the 1,3-di-Br deriv. of III, m. 173.5-4.degree.. IX forms 88.5% of the 1-Br deriv., m. 108.degree.; VII yields 54.6% of the 1-Br deriv., m. 161-2.degree., which was also prepd. from 1-bromo-3-amino-4-methoxydibenzofuran through the diazo reaction in 21% yield. 4-Bromo-6-methoxydibenzofuran (XII) and HI (d. 1.67) give 19% of the 6-HO analog, m. 138-9.degree.; FeCl3 gives a green color. XII, CuBr and NH4OH, heated in a steel bomb for 10 h. at 100.degree. and for 8 h. at 215.degree., give 51% of the HCl salt, m. 235-6.degree., of 4-amino-6-methoxydibenzofuran, m. 109.degree.; HBr in AcOH gives the 6-HO analog, m. 191.5-2.5.degree.. II, NaHSO3 and concd. NH4OH, heated at 185-95.degree. for 20 h., give 81% of 4,6-diaminodibenzofuran, m. 152.degree.; HCl salt, m. 298.degree. (decompn.); picrate, red-brown, m. 213.degree. (decompn.); di-Ac deriv., m. 297-8.degree.. Di-Ac deriv. of II, m. 177.degree.. II and PhN2Cl give a dark brown compd., m. 228.degree. (decompn.), which is nearly pure 1,3,9-trisbenzeneazo deriv.; Me2SO4 gives 77% of 1,3,9-trisbenzeneazo-4,6-dimethoxydibenzofuran, red-orange, m. 191-3.degree.. The 1-Ac deriv. of III, oxidized with I-KI in NaOH-dioxane, gives 55.2% of 4,6-dimethoxy-1-dibenzofurancarboxylic acid (XIII), m. 297-8.degree.; this also resulted from carbonation of the Grignard reagent of the 1-Br deriv. of II; Me ester, m. 163.degree.. XIII gives an acid chloride, m. 147-50.degree.; CH2N2 gives 21.2% of diazomethyl 4,6-dimethoxy-1-dibenzofuryl ketone, pale yellow, m. 151.degree. (decompn.); heating the ketone with concd. NH4OH and AgNO3 in dioxane gives 52% of the amide, m. 210-11.degree., of 4,6-dimethoxy-1- dibenzofurylacetic acid, m. 205.5-6.5.degree..

3-Aminodibenzofuran, diazotized and reduced with SnCl2, gives 87.3% of the HCl salt, m. 242-3.degree., of 3-hydrazinodibenzofuran, pale yellow, m. 174-5.degree., which turns orange in the atm. 4-Aminodibenzofuran in abs. EtOH, reduced by Na in a N atm., gives 62% of 1,2,3,4-tetrahydro-6-aminodibenzofuran, which is an oil at 0.degree.; HCl salt, pink, m. 228.degree. (decompn.); the diazo soln. with .beta.-C10H7OH gives a quant. yield of a brilliant carmine red dye, m. 199-201.degree..

L8 ANSWER 23 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1939:29848 CAPLUS Full-text
DOCUMENT NUMBER: 33:29848
ORIGINAL REFERENCE NO.: 33:4238b-f
TITLE: Dibenzofuran. X. Aminohydroxy derivatives
AUTHOR(S): Gilman, Henry; Jacoby, Arthur L.; Swislowsky, Jack
SOURCE: Journal of the American Chemical Society (1939), 61, 954-6
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB 4-Acetaminodibenzofuran and HNO3 (d. 1.49) in Ac2O at -10.degree. give 35% of the Ac deriv. (I), pale yellow, m. 238.degree., of 3-nitro-4-aminodibenzofuran (II), deep yellow, m. 185-6.degree.. Catalytic redn. of I gives a quant. yield of 3-amino-4-acetaminodibenzofuran, silvery plates, m. 236-7.degree.; di-Ac deriv., m. 257.degree.. Redn. of II with Raney Ni and reaction with phenanthraquinone give dibenzo[a,c]benzofuro[2,3- h]phenazine, yellow, m. 277-8.degree.. 4-Hydroxydibenzofuran (III) and HNO3 in AcOH at -12.degree. give 25% of the 3-NO2 deriv. (IV), light yellow, m. 193.degree.; this also results from II through the diazo reaction. IV and CH2N2 give 65% of the 4-MeO deriv., yellow, m. 129.5.degree.. Nitration of III with concd. HNO3 in AcOH at 60.degree. gives 77% of the 3,8-di-NO2 deriv. (V), orange-red, m. 225.degree. (decompn.); this also results in a nearly quant. yield from IV. V and CH2N2 give 83% of 3,8-dinitro-4-methoxydibenzofuran, orange, m. 177.degree.. The 2-isomer of III yields 80% of a yellow di-NO2 deriv., m. 240.degree. (decompn.), which is probably the 3,8-deriv. 4-Methoxydibenzofuran and HNO3 in Ac2O at -15.degree. to -20.degree. give 18% of the 1-NO2 deriv., m. 155.degree.; 1-NH2 deriv., pale lavender, m. 104.degree., which also results from 1-bromo-4-methoxydibenzofuran and concd. NH4OH with CuBr at 230-40.degree.. 4-Ethoxydibenzofuran gives 28% of the 1-NO2 deriv., yellow, m. 135-5.5.degree.; 1-NH2 deriv., m. 91.degree. (Ac deriv., m. 218.5.degree.). 3-Aminodibenzofuran, EtI, Na2CO3 and H2O, refluxed 48 h., give 70% of 3-diethylaminodibenzofuran, m. 68.degree..

=> d ibib abs 1-14

L8 ANSWER 1 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1283312 CAPLUS Full-text
DOCUMENT NUMBER: 146:35882
TITLE: Electrophotographic photoreceptor, process cartridge, and electrophotographic apparatus
INVENTOR(S): Kikuchi, Toshihiro; Ochi, Atsushi; Sako, Harumi; Yoshimura, Kimihiro; Tamai, Hideaki; Kosaka, Nobuo
PATENT ASSIGNEE(S): Canon Kabushiki Kaisha, Japan
SOURCE: PCT Int. Appl., 86pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006129879	A1	20061207	WO 2006-JP311464	20060601

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: JP 2005-162730 A 20050602
JP 2005-162732 A 20050602

AB This invention provides an electrophotog. photoreceptor, which, while ensuring satisfactory mech. strength, has significantly improved charge transport properties and has satisfactory elec. characteristics, and a process cartridge and an electrophotog. app. In the electrophotog. photoreceptor, the outermost surface layer comprises at least a product produced by polymg. or crosslinking a charge transport triarylamine compd. contg. a chain polymerizable functional group and curing the polymn. or crosslinking product. The process cartridge and electrophotog. app. comprise the photoreceptor.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:361248 CAPLUS Full-text
DOCUMENT NUMBER: 144:412351
TITLE: Process for the preparation of n-(3,5-dichloropyridin-4-yl)-4-difluoromethoxy-8-methanesulfonamido-dibenzo[b,d]furan-1-carboxamide
INVENTOR(S): Gopalan, Balasubramanian; Gharat, Laxmikant Atmaram; Chandrasekhar, Batchu; Karaunakaran, Usha; Pillai, Bijukumar Gopinathan
PATENT ASSIGNEE(S): Glenmark Pharmaceuticals S.A., Switz.
SOURCE: PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006040652	A2	20060420	WO 2005-IB3035	20051012
WO 2006040652	A3	20061026		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,

IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
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GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM

US 2006135779	A1	20060622	US 2005-251567	20051013
PRIORITY APPLN. INFO.:			US 2004-618474P	P 20041013
			IN 2004-MU1099	A 20041014
			US 2004-621981P	P 20041021

AB The present invention relates to a method of prepg. N-(3,5-dichloropyridin- 4-yl)-4-difluoromethoxy-8-methanesulfonamido-dibenzo[b,d]furan-1- carboxamide and pharmaceutically acceptable salts thereof, such as its sodium salt, and novel intermediate compds. useful in the synthesis of the aforementioned compd. For example, reaction of 4-cyclopentyloxy-3- hydroxybenzaldehyde with 2-bromo-1-fluoro-4-nitrobenzene (70-77%), followed by cyclization, gave 4-cyclopentyloxy-8-nitro-1- formyldibenzofuran in 60-65% yield, which yielded the title compd. after 9 steps.

L8 ANSWER 3 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:	2006:103883 CAPLUS Full-text
DOCUMENT NUMBER:	144:170874
TITLE:	Preparation of dibenzofurans and related compounds as phosphodiesterase type 4 inhibitors useful for the treatment of inflammatory and allergic disorders
INVENTOR(S):	Balasubramanian, Gopalan; Gharat, Laxmikant Atmaram; Joshi, Hemant Vasant
PATENT ASSIGNEE(S):	Glenmark Pharmaceuticals Ltd., India
SOURCE:	PCT Int. Appl., 145 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1
PATENT INFORMATION:	

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006011024	A2	20060202	WO 2005-IB2061	20050718
WO 2006011024	A3	20060330		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
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GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,
SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
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CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:	US 2004-589479P	P	20040719
	IN 2004-MU809	A	20040729
OTHER SOURCE(S):	MARPAT 144:170874		

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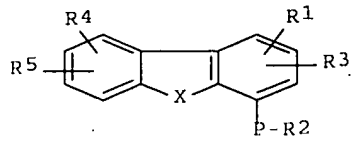


I

AB The present invention relates to novel tricyclic compds. (shown as I; variables defined below; e.g. 4-(4-methoxydibenzofuran-1-yl)-2-pyrrolidinone), analogs, tautomers, regioisomers, stereoisomers, enantiomers, diastereomers, polymorphs, pharmaceutically acceptable salts, appropriate oxides, pharmaceutically acceptable solvates and pharmaceutical compns. contg. them. The present invention also relates to phosphodiesterase type 4 (PDE4) inhibitors which down regulate or inhibit the prodn. of TNF-.alpha. and therefore are useful in the treatment of variety of allergic and inflammatory diseases including asthma and chronic obstructive pulmonary disease (COPD). Methods of prepn. are claimed and prepns. and/or characterization data for .apprx.60 examples of I are included. For example, 4-(4-methoxydibenzofuran-1-yl)-2-pyrrolidinone was prepd. by reductive cyclization of 3-(4-methoxydibenzofuran-1-yl)-4- nitrobutanoate (prepn. given) in iPrOH/DMF using 10 % Pd/C. For I: R1 is (un)substituted aryl, arylalkyl, heteroaryl, heterocyclyl, heterocyclylalkyl, or heteroarylalkyl; R2, R3, R4, R5 and R6 may be the same or different and = H or (un)substituted alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, cycloalkenyl, aryl, arylalkyl, heteroaryl, heterocyclic group, heterocyclylalkyl, or heteroarylalkyl, -NR8R9, -C(O)R8, -C(O)OR8, -C(O)NR8R9, -S(O)mR8, -S(O)mNR8R9, nitro, -OH, cyano, formyl, acetyl, halogen, -OR8, -SR8, or a protecting group, or when R1 and R3, or R4 and R5 are ortho to each other then R1 and R3 together with the C atoms to which they are bound or R4 and R5 together with the C atoms to which they are bound may be joined to a form a (un)satd. cyclic ring, which may optionally include up to two heteroatoms = O, NRa or S; X is O, S(O)m and NR6; P is O or S; m = 0-2; addnl. details are given in the claims. IC50 values for inhibition of PDE4 by .apprx.60 examples of I are tabulated.

L8 ANSWER 4 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:1077670 CAPLUS Full-text
DOCUMENT NUMBER: 143:372827
TITLE: Hair dyeing compositions containing heterocyclic compounds
INVENTOR(S): Glenn, Robert Wayne; McMeekin, Anthony; Lim, Mu'ill; Gardlik, John Michael; Jones, Stevan David; Murphy, Bryan Patrick
PATENT ASSIGNEE(S): UK
SOURCE: U.S. Pat. Appl. Publ., 42 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005217038	A1	20051006	US 2005-99740	20050406
WO 2005099656	A2	20051027	WO 2005-US11810	20050406
WO 2005099656	A3	20060504		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL,
SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
MR, NE, SN, TD, TG

EP 1735059 A2 20061227 EP 2005-737700 20050406
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR

PRIORITY APPLN. INFO.: US 2004-559823P P 20040406
WO 2005-US11810 W 20050406

OTHER SOURCE(S): MARPAT 143:372827

AB Compns. for the oxidative dyeing of hair fibers, comprise a medium suitable for dyeing and 1 or more tricyclic heteroarom. hair dyeing compds. A method for oxidative dyeing of the hair fibers, comprises applying such compns. in the presence of an oxidizing agent, for a period sufficient to develop the desired coloration. Thus, a hair dye formulation contained 9H-carbazole-1,4-diamine 0.05%.

L8 ANSWER 5 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1026087 CAPLUS Full-text
DOCUMENT NUMBER: 143:336429
TITLE: The color conversion film, the color conversion filter and the organic EL display
INVENTOR(S): Yoshida, Shohei; Oyama, Yosuke; Kawaguchi, Takeshi; Kobayashi, Makoto
PATENT ASSIGNEE(S): Kochi University, Japan; Fuji Electric Holding Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005259688	A	20050922	JP 2005-34904	20050210

PRIORITY APPLN. INFO.: JP 2004-37033 A 20040213
OTHER SOURCE(S): MARPAT 143:336429
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The disclosed color conversion film contains a binder and a dye selected from I or II (R1 = alkyl, cycloalkyl, phenyl; R2, R3 = C1-10 alkyl, C5-10 cycloalkyl; R4, R5 = H; R2-R4 and R3-R5 combination may form alkylene groups to complete rings; X = alkyl, cycloalkyl, Ph, halo, OR6, R6CO2, SR6, NR6R7; R6, R7 = H, alkyl cycloalkyl; Z = O, S, NR6). Optionally, the film may also contain red-conversion dye selected from rhodamine, cyanine, pyridine, and oxazine dyes. Color filters and org. electroluminescent display devices which

uses the color conversion films are also disclosed. The film exhibit excellent light-fastness.

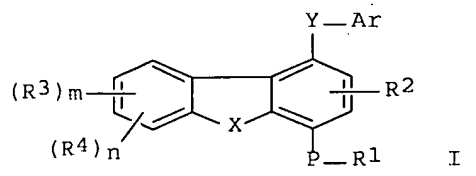
L8 ANSWER 6 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:99226 CAPLUS Full-text
DOCUMENT NUMBER: 142:197859
TITLE: Preparation of dibenzo[b,f]furan-1-carboxamides, 9H-carbazole-4-carboxamides, and dibenzo[b,d]thiophene-4-carboxamides as PDE4 inhibitors for the treatment of inflammatory and allergic disorders
INVENTOR(S): Gopalan, Balasubramanian; Gharat, Laxmikant A.; Lakdawala, Aftab D.; Karunakaran, Usha
PATENT ASSIGNEE(S): Glenmark Pharmaceuticals, Inc. USA, USA
SOURCE: U.S. Pat. Appl. Publ., 59 pp., Cont.-in-part of Appl. No. PCT/IB04/000355.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005027129	A1	20050203	US 2004-821642	20040409
WO 2004089940	A1	20041021	WO 2004-IB355	20040211

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:		
IN 2003-MU363	A	20030411
US 2003-519967P	P	20031113
WO 2004-IB355	A2	20040211

OTHER SOURCE(S): MARPAT 142:197859
GI



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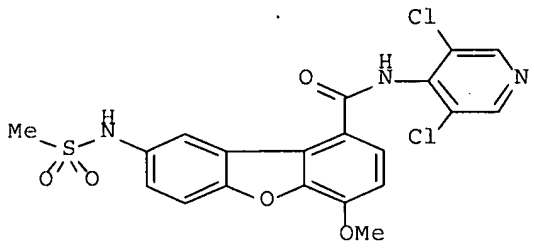

II

AB Title heterocyclic tricycles I [wherein R1-R3, R5, R6, Ra = independently H, (un)substituted (cyclo)alkyl, (cyclo)alkenyl, alkynyl, (hetero)aryl, heterocyclyl(alkyl), etc.; R4 = NR5R6 (R5, R6 = H, alkyl, cycloalkyl, etc.), heterocyclyl; Ar = (un)substituted aryl(alkyl), heterocyclyl, heteroaryl; X = O, SO0-2, NRa; Y = CONR7, NR7SO0-2, SO0-2NR7, NR7CO; R7 = H, OH, ORa, (un)substituted alkyl, aryl, heterocyclyl; P = O, S; m = 0-3; n = 1-4; Ra = H, alkyl, cycloalkyl, etc.; and tautomers, regioisomers, stereoisomers, enantiomers, diastereomers, polymorphs, N-oxides, pharmaceutically acceptable salts, solvates, and compns. thereof] were prepd. as phosphodiesterase type 4 (PDE4) inhibitors. For example, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-aminodibenzo[b,f]furan-1- carboxamide (prepd. in six steps from isovanillin, 4-fluoronitrobenzene, and 4-amino-3,5-dichloropyridine) was coupled with methanesulfonyl chloride in THF and pyridine to give the sulfonamide II. The latter inhibited the PDE4-induced conversion of [3H] cAMP to the corresponding [3H] 5'-AMP with IC50 of 0.5058 nM. Thus, I and their pharmaceutical compns. are useful for the treatment of immune disorders, inflammatory conditions, allergic conditions, CNS diseases, and insulin resistant diabetes (no data).

L8 ANSWER 7 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:878393 CAPLUS Full-text
DOCUMENT NUMBER: 141:366121
TITLE: Preparation of dibenzo[b,f]furan-1-carboxamides, 9H-carbazole-4-carboxamides, and dibenzo[b,d]thiophene-4-carboxamides as PDE4 inhibitors for the treatment of inflammatory and allergic disorders
INVENTOR(S): Gopalan, Balasubramanian; Gharat, Laxmikant Atmaram; Lakdawala, Aftab Dawoodbhai; Karaunakaran, Usha
PATENT ASSIGNEE(S): Glenmark Pharmaceuticals Ltd., India
SOURCE: PCT Int. Appl., 121 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004089940	A1	20041021	WO 2004-IB355	20040211
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,				

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
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AU 2004228453	A1	20041021	AU 2004-228453	20040211
CA 2522023	A1	20041021	CA 2004-2522023	20040211
EP 1620429	A1	20060201	EP 2004-710093	20040211
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2004009747	A	20060509	BR 2004-9747	20040211
CN 1829711	A	20060906	CN 2004-80016048	20040211
JP 2006522789	T	20061005	JP 2006-506259	20040211
US 2005027129	A1	20050203	US 2004-821642	20040409
NO 2005005316	A	20060111	NO 2005-5316	20051110
PRIORITY APPLN. INFO.:			IN 2003-MU363 A	20030411
			US 2003-519967P P	20031113
			WO 2004-IB355 W	20040211

OTHER SOURCE(S): CASREACT 141:366121; MARPAT 141:366121

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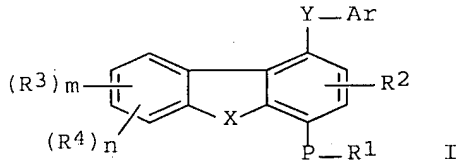

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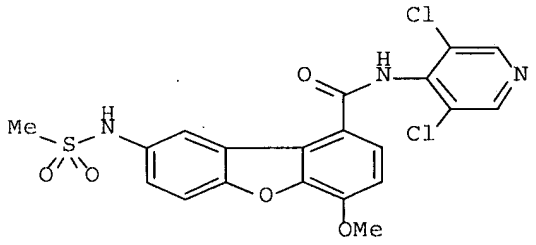


II

AB Title heterocyclic tricycles I [wherein R1-R3, R5, R6, Ra = independently H, (un)substituted (cyclo)alkyl, (cyclo)alkenyl, alkynyl, (hetero)aryl, heterocyclyl(alkyl), etc.; R4 = NR5R6, heterocyclyl; Ar = (un)substituted aryl(alkyl), heterocyclyl, heteroaryl; X = O, SO0-2, NRa; Y = CONR7, NR7SO0-2, SO0-2NR7, NR7CO; R7 = H, OH, ORa, (un)substituted alkyl, aryl, heterocyclyl; P = O, S; m = 0-3; n = 1-4; and tautomers, regioisomers, stereoisomers, enantiomers, diastereomers, polymorphs, N-oxides, pharmaceutically acceptable salts, solvates, and compns. thereof] were prepd. as phosphodiesterase type 4 (PDE4) inhibitors. For example, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-aminodibenzo[b,f]furan-1- carboxamide (prepd. in six steps from isovanillin, 4-fluoronitrobenzene, and 4-amino-3,5-dichloropyridine) was coupled with methanesulfonyl chloride in THF and pyridine to give the sulfonamide II. The

latter inhibited the PDE4-induced conversion of [3H] cAMP to the corresponding [3H] 5'-AMP with IC50 of 0.5058 nM. Thus, I and their pharmaceutical compns. are useful for the treatment of immune disorders, inflammatory conditions, allergic conditions, CNS diseases, and insulin resistant diabetes (no data).

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 8 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:606600 CAPLUS Full-text
DOCUMENT NUMBER: 141:164539
TITLE: Backlight polar organic light-emitting device
INVENTOR(S): Lazarev, Pavel I.
PATENT ASSIGNEE(S): Optiva, Inc., USA
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2004064112	A2	20040729	WO 2004-US229		20040106
WO 2004064112	A3	20050317			
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ					
US 2004224182	A1	20041111	US 2003-643257		20030818
JP 2006516814	T	20060706	JP 2006-500803		20040106
PRIORITY APPLN. INFO.:			US 2003-438714P	P	20030107
			US 2003-643257	A	20030818
			WO 2004-US229	W	20040106

AB An org. light-emitting device (OLED) is provided which comprises a substrate and an org. electroluminescent cell formed on the substrate. The org. electroluminescent cell comprises a first electrode that serves as an anode, a second electrode that serves as a cathode, and at least one light-emitting layer positioned between the anode and cathode. At least one light-emitting layer is an anisotropic elec. conducting layer which has a globally ordered cryst. structure and is comprised of rodlike supramols.

L8 ANSWER 9 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:370918 CAPLUS Full-text
DOCUMENT NUMBER: 140:391192
TITLE: Preparation of dibenzofuran/dibenzothiophene derivatives useful for the treatment of inflammatory and allergic disorders
INVENTOR(S): Balasubramanian, Gopalan; Gharat, Laxmikant Atmaram; Lakdawala, Aftab Dawoodbhai; Anupindi, Raghu Ram
PATENT ASSIGNEE(S): Glenmark Pharmaceuticals Ltd., India
SOURCE: PCT Int. Appl., 254 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2004037805	A1	20040506	WO 2003-IB4442	20031008

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

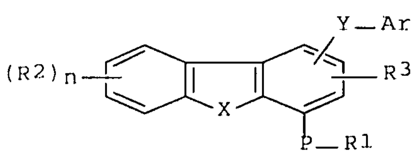
CA 2503015	A1	20040506	CA 2003-2503015	20031008
AU 2003269317	A1	20040513	AU 2003-269317	20031008
EP 1554262	A1	20050720	EP 2003-751096	20031008

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

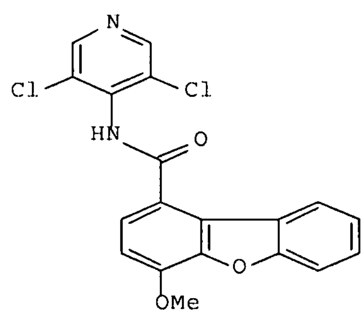
BR 2003014721	A	20050802	BR 2003-14721		20031008
CN 1729181	A	20060201	CN 2003-80107246		20031008
JP 2006506379	T	20060223	JP 2004-546246		20031008
ZA 2005002969	A	20060222	ZA 2005-2969		20050413
US 2006178418	A1	20060810	US 2005-532273		20050926
PRIORITY APPLN. INFO.:			IN 2002-MU922	A	20021023
			WO 2003-IB4442	W	20031008

OTHER SOURCE(S): MARPAT 140:391192

GI



I



II

AB Title compds. I [R1-3 = H, alk(en/yn)yl, cycloalkyl, etc.; P = O, S; n = 0-4; Ar = (un)substituted aryl, etc.; Y = carboxamido, aminosulfonyl, etc.] are prepd. For instance, 4-methoxydibenzofuran-1-carboxylic acid (prepn. given) is converted to the corresponding acid chloride (PhH, SOCl2, reflux, 4 h) and treated with 4-amino-3,5-dichloropyridine (DMF/THF, NaH, -10.degree.) to give II. II has IC50 = 0.8 nM for PDE4. I are useful for the treatment of inflammatory conditions, diseases of the central nervous and insulin resistant diabetes.

L8 ANSWER 10 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:861050 CAPLUS Full-text

DOCUMENT NUMBER: 139:164660

TITLE: Product class 6: dibenzothiophenes

AUTHOR(S): Andrews, M. D.

CORPORATE SOURCE: Pfizer Central Research, Kent, CT13 9NJ, UK

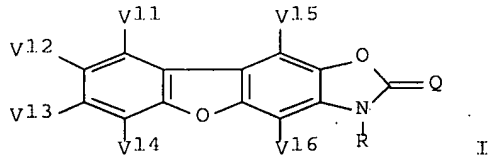
SOURCE: Science of Synthesis (2001), 10, 211-263

CODEN: SSCYJ9
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review. Methods for prepg. dibenzothiophenes are reviewed including cyclization, ring transformation, aromatization and substituent modifications.
REFERENCE COUNT: 187 THERE ARE 187 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 11 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:694445 CAPLUS Full-text
DOCUMENT NUMBER: 133:268224
TITLE: Methine dyes which are effectively excited with helium-neon laser and give strong fluorescence
INVENTOR(S): Nishigaki, Junji; Kobayashi, Masaru; Kato, Takashi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000273330	A	20001003	JP 1999-79493	19990324

PRIORITY APPLN. INFO.: JP 1999-79493 19990324
OTHER SOURCE(S): MARPAT 133:268224
GI



I

AB Title dyes are represented by the general formula I, where R = (un)substituted alkyl or (un)substituted aryl; Q = methine or polymethine having 1 or .gtoreq.2 substituents selected from (un)substituted hetero ring and (un)substituted aryl; and V11-16 = H or monovalent substituent. Substances labeled with I are also claimed.

L8 ANSWER 12 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:253229 CAPLUS Full-text
DOCUMENT NUMBER: 133:73821
TITLE: Synthesis, structure and properties of 2-bromo-4,4'-dinitro-3'-(dimethylsulfonio)-2'-biphenolate
AUTHOR(S): Hou, Zi-Jie; Cai, Li-Ping
CORPORATE SOURCE: National Laboratory of Applied Organic Chemistry, Institute of Organic Chemistry, Lanzhou University, Lanzhou, 730000, Peop. Rep. China
SOURCE: Huaxue Xuebao (2000), 58(3), 358-362

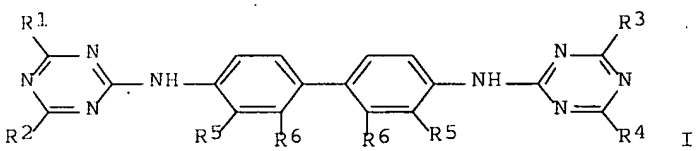
CODEN: HHHPA4; ISSN: 0567-7351
PUBLISHER: Kexue Chubanshe
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
OTHER SOURCE(S): CASREACT 133:73821

AB In presence of an amine, the reaction of 3,7-dinitrodibenzobromolium bisulfate with DMSO gives 2-bromo-4,4'-dinitro-3'-dimethylsulfinio-2'- biphenolate (I). Crystal structure of I.1/2 C6H6, obtained by crystn. of I in benzene showes that I is a inner salt. The dihedral angle between two Ph rings is 117.3.degree.. The C(3)-O(3) bond distance(0.1254 nm) falls in the range from 0.119 .apprx. 0.121 nm (C=O double bond distance) to 0.133 .apprx. 0.136 nm (C-O single bond distance), which showes that there is a conjugation between O(3) and the Ph ring. Thermal decompn. of I gives both 2-bromo-2'-methoxy-3'-methylthio-4,4'-dinitro-biphenyl and 3,7-dinitro-4-methylthio-dibenzofurane. The reaction of I with hydrochloric acid gives corresponding sulfonium salt.

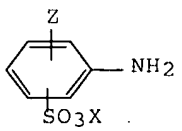
L8 ANSWER 13 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1992:485229 CAPLUS Full-text
DOCUMENT NUMBER: 117:85229
TITLE: Triazine derivatives as plant virucides
INVENTOR(S): Hofferek, Horst; Noll, Bernd; Keil, Siegfried; Kochmann, Werner; Ostermann, Wolf Dieter
PATENT ASSIGNEE(S): Chemie A.-G. Bitterfeld-Wolfen, Germany
SOURCE: Ger. (East), 7 pp.
CODEN: GEXXA8
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 298196	A5	19920213	DD 1989-326011	19890224
PRIORITY APPLN. INFO.:			DD 1989-326011	19890224

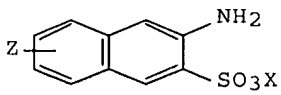
OTHER SOURCE(S): MARPAT 117:85229
GI



I



Q



Q1

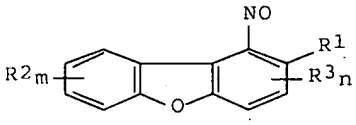
AB The triazines I [R1, R3 = Cl, OH, (un)substituted NH2, heterocyclyl, etc.; R2, R4 = R1, Q, Q1, etc.; X = Na, K, NH4; Z = H, Cl, SO3X; R5, R6 = H, SO3Na; R6R6 = SO2] are plant virucides, which enhance plant resistance against viruses. I

(R1 = R3 = NHCH2CH2OH, R2 = R4 = 3-NaO3SC6H4, R5 = H, R6 = SO3Na) (0.05%) protected tobacco against artificial infection by the tobacco mosaic virus.

L8 ANSWER 14 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1990:138901 CAPLUS Full-text
DOCUMENT NUMBER: 112:138901
TITLE: Preparation of nitrosodibenzofuran derivatives as dye intermediates
INVENTOR(S): Yamamoto, Shinichi; Taniguchi, Takashi
PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01193261	A	19890803	JP 1988-18138	19880128

PRIORITY APPLN. INFO.: JP 1988-18138 19880128
OTHER SOURCE(S): MARPAT 112:138901
GI



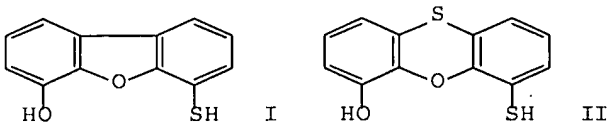
I

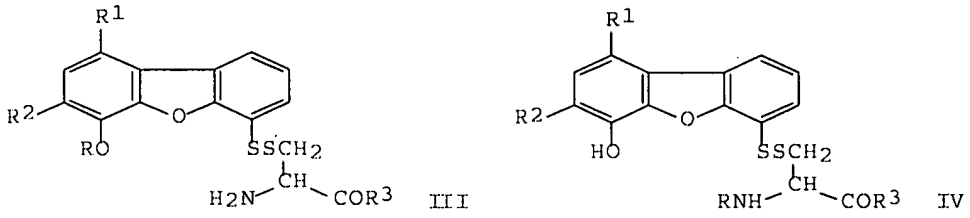
AB The title compds. [I; R1 = (substituted) NH2, OH, C2-10 acyloxy, C1-20 alkoxy, etc.; R2, R3 = (substituted) NH2, OH, C2-10 acyloxy, halo, cyano, etc.; m = 0-4; n = 0-2], useful as intermediates for dyes, are prepd. by nitrosation of dibenzofuran derivs. A 20% aq. NaNO2 soln. was added to a soln. of 10 g 2-hydroxydibenzofuran in pyridine at 0.degree., followed by 30% H2SO4 with stirring, to give 11 g nitroso deriv. I (R1 = OH; m = n = 0). Similarly prepd. were 3 addnl. I.

=> d ibib abs hitstr 15-23

L8 ANSWER 15 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1986:207666 CAPLUS Full-text
DOCUMENT NUMBER: 104:207666
TITLE: Peptide synthesis by prior thiol capture. 2. Design of templates for intramolecular O,N-acyl transfer. 4,6-Disubstituted dibenzofurans as optimal spacing elements
AUTHOR(S): Kemp, D. S.; Galakatos, Nicholas G.; Bowen, Benjamin; Tan, Kenneth
CORPORATE SOURCE: Dep. Chem., Massachusetts Inst. Technol., Cambridge, MA, 02139, USA
SOURCE: Journal of Organic Chemistry (1986), 51(10), 1829-38

CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 104:207666
GI



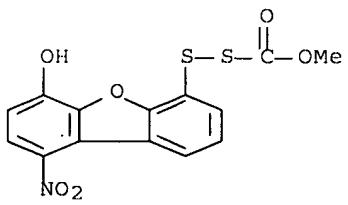


AB A central feature of the strategy for amide bond formation by prior thiol capture is an intramol. acyl transfer across a template that links the phenolic ester function of one peptide with an unsym. disulfide involving the side chain of the N-terminal cysteine residue of a second peptide. The structures of 4-hydroxy-6-mercaptodibenzofuran (I) and 4-hydroxy-6-mercaptophenoxythiin (II) were established by 1H NMR spectra of deuterated dibenzofuran and phenoxythiin derivs. On the basis of the criterion of effective molarity, a dibenzofuran template for intramol. acyl transfer is approx. 2 orders of magnitude more efficient than a phenoxythiin. An effective local concn. of ca 5 M and a Hammett .rho. value of 2.6 is obsd. for the intramol. acyl-transfer reaction of O-acyl dibenzofuran derivs. III (R = Ac, PhCH2O2C-Ala; R1 = H, Cl, Br, NO2; R2 = H, Cl; R3 = C-terminal group) to the corresponding N-acyl derivs. IV.

IT 101762-25-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and O-acylation of, with alanine deriv.)

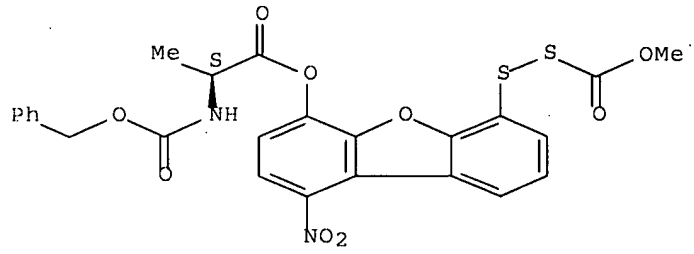
RN 101762-25-8 CAPLUS

CN Carbono(dithioperoxoic) acid, SS-(6-hydroxy-9-nitro-4-dibenzofuranyl) O-methyl ester (9CI) (CA INDEX NAME)



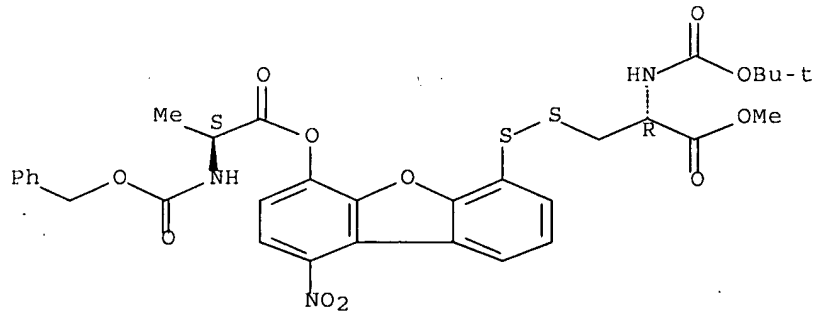
IT 101762-26-9P 101774-02-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 101762-26-9 CAPLUS
CN L-Alanine, N-[(phenylmethoxy)carbonyl]-, 6-[(methoxycarbonyl)dithio]-1-nitro-4-dibenzofuranyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

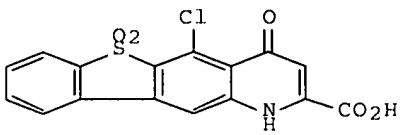


RN 101774-02-1 CAPLUS
CN L-Alanine, N-[(1,1-dimethylethoxy)carbonyl]-3-[(6-hydroxy-9-nitro-4-dibenzofuranyl)dithio]-, methyl ester, ester with N-[(phenylmethoxy)carbonyl]-L-alanine (9CI) (CA INDEX NAME)

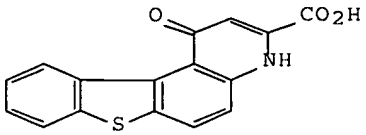
Absolute stereochemistry.



L8 ANSWER 16 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1979:66597 CAPLUS Full-text
DOCUMENT NUMBER: 90:66597
TITLE: Antiallergic activity of tetracyclic derivatives of quinoline-2-carboxylic acid. 2. Some benzothienoquinolinecarboxylic acids
AUTHOR(S): Wade, James J.; Erickson, Edward H.; Hegel, Ramon F.; Lappi, Larry R.; Rice, Thomas K.
CORPORATE SOURCE: Riker Lab., 3M Co., St. Paul, MN, USA
SOURCE: Journal of Medicinal Chemistry (1978), 21(9), 941-8
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I



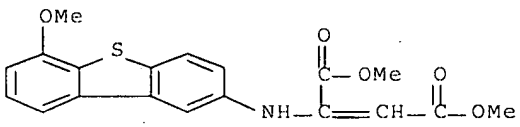
II

AB Benzothienoquinolinecarboxylic acids and their esters (>90 compds.) were prepd. and tested as potential antiallergic agents. Their antianaphylactic activity was comparable to that of di-Na cromoglycate. I and II were approx. 8 times more active than di-Na chromoglycate in rat passive cutaneous anaphylaxis assay.

IT 67086-01-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and cyclization of)

RN 67086-01-5 CAPLUS

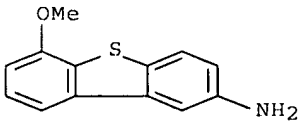
CN 2-Butenedioic acid, 2-[(6-methoxy-2-dibenzothienyl)amino]-, dimethyl ester (9CI) (CA INDEX NAME)



IT 62986-33-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 62986-33-8 CAPLUS

CN 2-Dibenzothiophenamine, 6-methoxy- (9CI) (CA INDEX NAME)



Closest Prior art

L8 ANSWER 17 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1977:423247 CAPLUS Full-text

DOCUMENT NUMBER: 87:23247

TITLE: 1-Benzothieno[3,2-f]quinolinecarboxylic acids

INVENTOR(S): Lappi, Larry R.; Erickson, Edward H.

PATENT ASSIGNEE(S): Riker Laboratories, Inc., USA

SOURCE: Ger. Offen., 36 pp.
CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

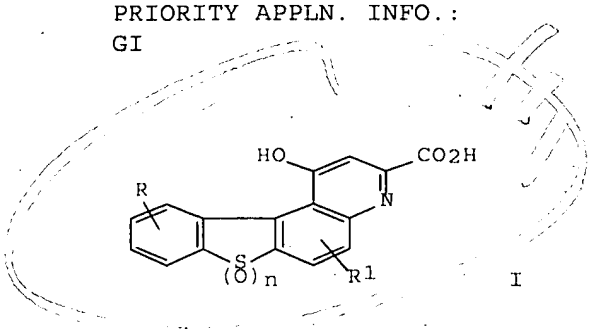
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2638081	A1	19770310	DE 1976-2638081	19760824
US 4018780	A	19770419	US 1975-607626	19750825
JP 52027799	A	19770302	JP 1976-101027	19760824
FR 2321887	A1	19770325	FR 1976-25645	19760824
FR 2321887	B1	19781117		
GB 1563112	A	19800319	GB 1976-35227	19760824

PRIORITY APPLN. INFO.: US 1975-607626 A 19750825

GI



I

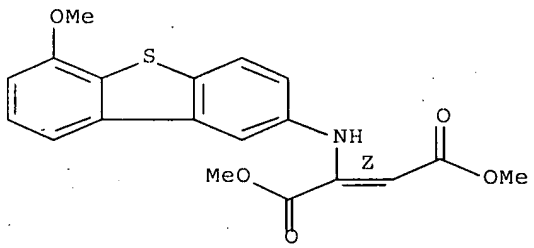
AB 1-Hydroxy[1]benzothieno[3,2-f]quinoline-3-carboxylic acids (I; R = e.g. 10-F, 8-Cl, 10-Br, 10-Me, 10-MeO, H, 8-MeO, 9-Me; R1 = e.g. H, 6-Cl, 5-MeO, 6-MeO; n = 0, 1, 2), useful as allergy inhibitors, are prepd. by reaction of 2-aminodibenzothiophenes with MeO2CC.tplbond.CCO2Me (II), cyclization of the resulting di-Me (dibenzothiophene-2-ylamino)fumarates and hydrolysis of the Me esters. Thus, reaction of II with 2-amino-8-fluorodibenzothiophene in MeOH at room temp. 16 h gives di-Me [(8-fluorodibenzothiophene-2-yl)amino]fumarate which on heating 5 min at 240.degree. in Ph2O gives the Me ester which is hydrolyzed to give I (R = 10-F, R1 = H, n = 0).

IT 62986-47-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and cyclization of)

RN 62986-47-4 CAPLUS

CN 2-Butenedioic acid, 2-[(6-methoxy-2-dibenzothienyl)amino]-, dimethyl ester, (Z)- (9CI) (CA INDEX NAME)

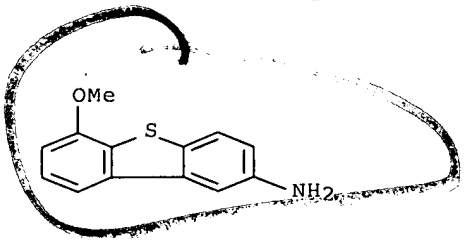
Double bond geometry as shown.



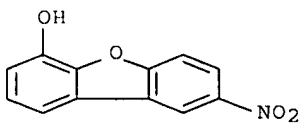
IT 62986-33-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, and reaction with dimethyl acetylenedicarboxylate)

RN 62986-33-8 CAPLUS

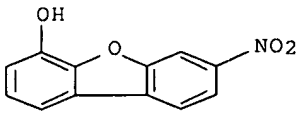
CN 2-Dibenzothiophenamine, 6-methoxy- (9CI) (CA INDEX NAME)



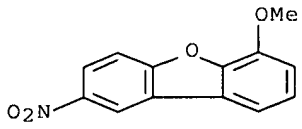
L8 ANSWER 18 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1966:59731 CAPLUS Full-text
DOCUMENT NUMBER: 64:59731
ORIGINAL REFERENCE NO.: 64:11148g-h
TITLE: Potentially chemotherapeutic dibenzofurans
AUTHOR(S): Onyiriuka, S. O.; Rees, A. H.
CORPORATE SOURCE: Univ. Ibadan, Nigeria
SOURCE: J. Chem. Soc., Org. (1966), (5), 504-6
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB A number of new disubstituted dibenzofurans (I and II) were prepd. for evaluation of their chemotherapy, and for use in further syntheses.
IT 5917-25-9P, 4-Dibenzofuranol, 8-nitro- 5917-26-0P, 4-Dibenzofuranol, 7-nitro- 5917-27-1P, Dibenzofuran, 6-methoxy-2-nitro- 5917-28-2P, Dibenzofuran, 6-methoxy-3-nitro- 5918-98-9P, Dibenzofuran, 1-bromo-4-methoxy-8-nitro- 5919-00-6P, 2-Dibenzofuranamine, 6-methoxy- 5919-01-7P, 3-Dibenzofuranamine, 6-methoxy- 5919-02-8P, Dibenzofuran, 2-acetamido-6-methoxy- 5919-03-9P, Dibenzofuran, 3-acetamido-6-methoxy- 5919-09-5P, Ketone, 4-methoxy-7-nitro-1-dibenzofuranyl methyl 5919-10-8P, Ketone, 4-methoxy-8-nitro-1-dibenzofuranyl methyl 5919-11-9P, Ketone, 4-methoxy-8-nitro-1-dibenzofuranyl methyl, oxime 5919-12-0P, 1-Dibenzofurancarboxamide, 4-methoxy-N-methyl-7-nitro- 5946-69-0P, 1-Dibenzofurancarboxylic acid, 4-methoxy-7-nitro- 5981-98-6P, 4-Dibenzofuranol, 8-acetamido-, acetate 5981-99-7P, 4-Dibenzofuranol, 7-acetamido-, acetate 5982-01-4P, Ketone, 4-methoxy-7-nitro-1-dibenzofuranyl methyl, oxime 6077-63-0P, Ketone, 7-amino-4-methoxy-1-dibenzofuranyl methyl
RL: PREP (Preparation)
(prepn. of)
RN 5917-25-9 CAPLUS
CN 4-Dibenzofuranol, 8-nitro- (7CI, 8CI) (CA INDEX NAME)



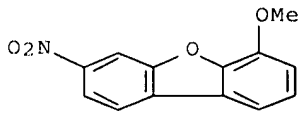
RN 5917-26-0 CAPLUS
CN 4-Dibenzofuranol, 7-nitro- (7CI, 8CI) (CA INDEX NAME)



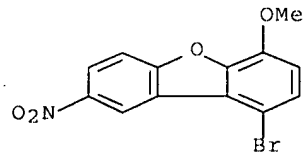
RN 5917-27-1 CAPLUS
CN Dibenzofuran, 6-methoxy-2-nitro- (7CI, 8CI) (CA INDEX NAME)



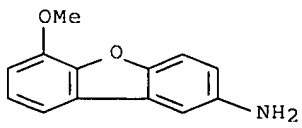
RN 5917-28-2 CAPLUS
CN Dibenzofuran, 6-methoxy-3-nitro- (7CI, 8CI) (CA INDEX NAME)



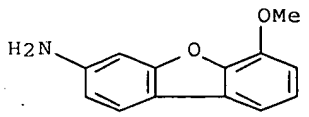
RN 5918-98-9 CAPLUS
CN Dibenzofuran, 1-bromo-4-methoxy-8-nitro- (7CI, 8CI) (CA INDEX NAME)



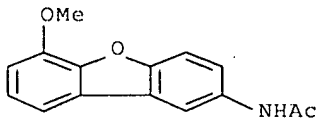
RN 5919-00-6 CAPLUS
CN 2-Dibenzofuranamine, 6-methoxy- (7CI, 8CI) (CA INDEX NAME)



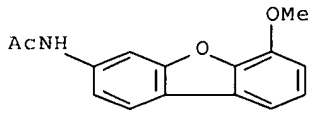
RN 5919-01-7 CAPLUS
CN 3-Dibenzofuranamine, 6-methoxy- (7CI, 8CI) (CA INDEX NAME)



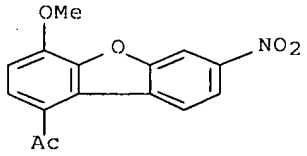
RN 5919-02-8 CAPLUS
CN Dibenzofuran, 2-acetamido-6-methoxy- (7CI, 8CI) (CA INDEX NAME)



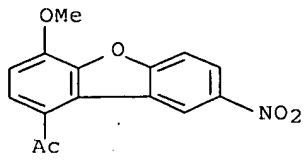
RN 5919-03-9 CAPLUS
CN Dibenzofuran, 3-acetamido-6-methoxy- (7CI, 8CI) (CA INDEX NAME)



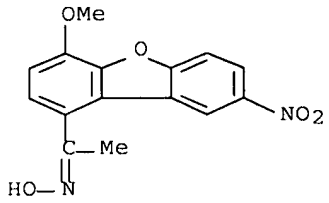
RN 5919-09-5 CAPLUS
CN Ketone, 4-methoxy-7-nitro-1-dibenzofuranyl methyl (7CI, 8CI) (CA INDEX NAME)



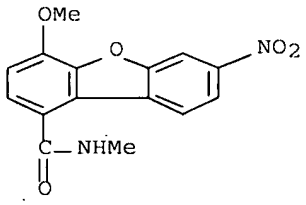
RN 5919-10-8 CAPLUS
CN Ketone, 4-methoxy-8-nitro-1-dibenzofuranyl methyl (7CI, 8CI) (CA INDEX NAME)



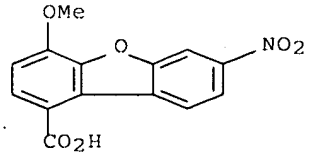
RN 5919-11-9 CAPLUS
CN Ketone, 4-methoxy-8-nitro-1-dibenzofuranyl methyl, oxime (7CI, 8CI) (CA INDEX NAME)



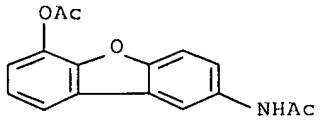
RN 5919-12-0 CAPLUS
CN 1-Dibenzofurancarboxamide, 4-methoxy-N-methyl-7-nitro- (7CI, 8CI) (CA INDEX NAME)



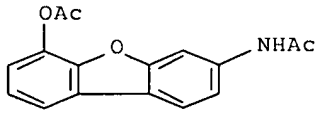
RN 5946-69-0 CAPLUS
CN 1-Dibenzofurancarboxylic acid, 4-methoxy-7-nitro- (7CI, 8CI) (CA INDEX NAME)



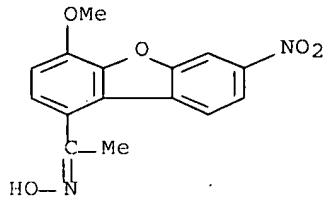
RN 5981-98-6 CAPLUS
CN 4-Dibenzofuranol, 8-acetamido-, acetate (7CI, 8CI) (CA INDEX NAME)



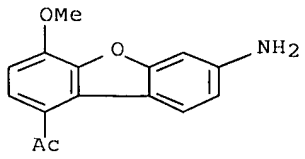
RN 5981-99-7 CAPLUS
CN 4-Dibenzofuranol, 7-acetamido-, acetate (7CI, 8CI) (CA INDEX NAME)



RN 5982-01-4 CAPLUS
CN Ketone, 4-methoxy-7-nitro-1-dibenzofuranyl methyl, oxime (7CI, 8CI) (CA INDEX NAME)

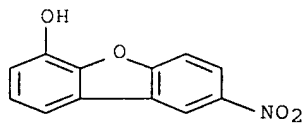


RN 6077-63-0 CAPLUS
CN Ketone, 7-amino-4-methoxy-1-dibenzofuranyl methyl (7CI, 8CI) (CA INDEX NAME)

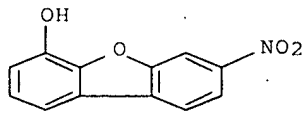


L8 ANSWER 19 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1966:59730 CAPLUS Full-text
DOCUMENT NUMBER: 64:59730
ORIGINAL REFERENCE NO.: 64:11148f-g
TITLE: The constituents of Cacalia decomposita. Structures of maturin, maturinin, maturone, and maturinone

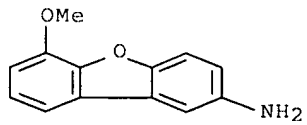
AUTHOR(S): Correa, J.; Romo, J.
CORPORATE SOURCE: Univ. Nacl. Autonoma, Mexico, D.F.
SOURCE: Tetrahedron (1966), 22(2), 685-91
CODEN: TETRAB; ISSN: 0040-4020
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB The structures of maturin (I), maturnin (II), maturone (III), and maturinone (IV) have been established as furonaphthalene derivatives, closely related to cacalol (V) and cacalone (VI).
IT 5917-25-9P, 4-Dibenzofuranol, 8-nitro- 5917-26-0P, 4-Dibenzofuranol, 7-nitro- 5919-00-6P, 2-Dibenzofuranamine, 6-methoxy- 5919-01-7P, 3-Dibenzofuranamine, 6-methoxy- 5919-09-5P, Ketone, 4-methoxy-7-nitro-1-dibenzofuranyl methyl 5919-10-8P, Ketone, 4-methoxy-8-nitro-1-dibenzofuranyl methyl 5919-11-9P, Ketone, 4-methoxy-8-nitro-1-dibenzofuranyl methyl, oxime 5919-12-0P, 1-Dibenzofurancarboxamide, 4-methoxy-N-methyl-7-nitro- 5946-69-0P, 1-Dibenzofurancarboxylic acid, 4-methoxy-7-nitro- 5981-98-6P, 4-Dibenzofuranol, 8-acetamido-, acetate 5981-99-7P, 4-Dibenzofuranol, 7-acetamido-, acetate 5982-01-4P, Ketone, 4-methoxy-7-nitro-1-dibenzofuranyl methyl, oxime 6077-63-0P, Ketone, 7-amino-4-methoxy-1-dibenzofuranyl methyl
RL: PREP (Preparation)
(prepn. of)
RN 5917-25-9 CAPLUS
CN 4-Dibenzofuranol, 8-nitro- (7CI, 8CI) (CA INDEX NAME)



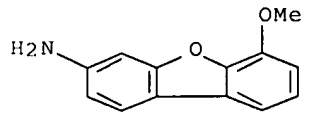
RN 5917-26-0 CAPLUS
CN 4-Dibenzofuranol, 7-nitro- (7CI, 8CI) (CA INDEX NAME)



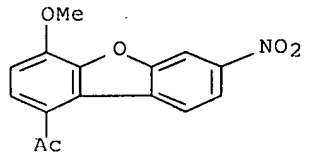
RN 5919-00-6 CAPLUS
CN 2-Dibenzofuranamine, 6-methoxy- (7CI, 8CI) (CA INDEX NAME)



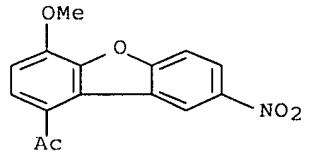
RN 5919-01-7 CAPLUS
CN 3-Dibenzofuranamine, 6-methoxy- (7CI, 8CI) (CA INDEX NAME)



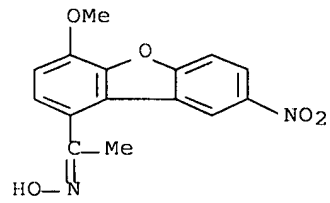
RN 5919-09-5 CAPLUS
CN Ketone, 4-methoxy-7-nitro-1-dibenzofuranyl methyl (7CI, 8CI) (CA INDEX NAME)



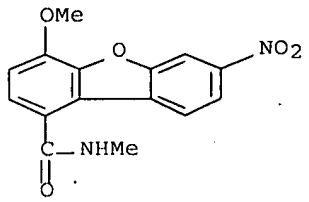
RN 5919-10-8 CAPLUS
CN Ketone, 4-methoxy-8-nitro-1-dibenzofuranyl methyl (7CI, 8CI) (CA INDEX NAME)



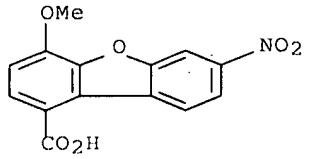
RN 5919-11-9 CAPLUS
CN Ketone, 4-methoxy-8-nitro-1-dibenzofuranyl methyl, oxime (7CI, 8CI) (CA INDEX NAME)



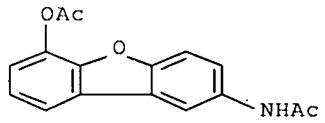
RN 5919-12-0 CAPLUS
CN 1-Dibenzofurancarboxamide, 4-methoxy-N-methyl-7-nitro- (7CI, 8CI) (CA INDEX NAME)



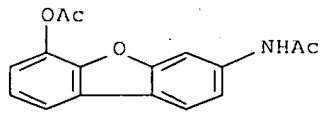
RN 5946-69-0 CAPLUS
CN 1-Dibenzofurancarboxylic acid, 4-methoxy-7-nitro- (7CI, 8CI) (CA INDEX NAME)



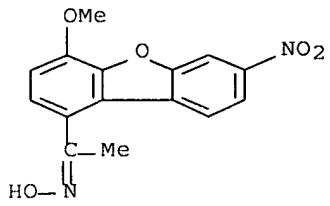
RN 5981-98-6 CAPLUS
CN 4-Dibenzofuranol, 8-acetamido-, acetate (7CI, 8CI) (CA INDEX NAME)



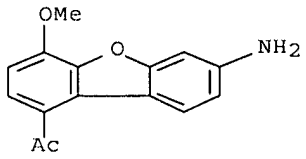
RN 5981-99-7 CAPLUS
CN 4-Dibenzofuranol, 7-acetamido-, acetate (7CI, 8CI) (CA INDEX NAME)



RN 5982-01-4 CAPLUS
CN Ketone, 4-methoxy-7-nitro-1-dibenzofuranyl methyl, oxime (7CI, 8CI) (CA INDEX NAME)



RN 6077-63-0 CAPLUS
CN Ketone, 7-amino-4-methoxy-1-dibenzofuranyl methyl (7CI, 8CI) (CA INDEX NAME)



L8 ANSWER 20 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1962:457092 CAPLUS Full-text
DOCUMENT NUMBER: 57:57092
ORIGINAL REFERENCE NO.: 57:11415i,11416a-b
TITLE: Neomycin-treated cellulosic textile materials
PATENT ASSIGNEE(S): American Cyanamid Co.
SOURCE: 8 pp.; Addn. to Brit. 788,968, (CA 52, 10601b)
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

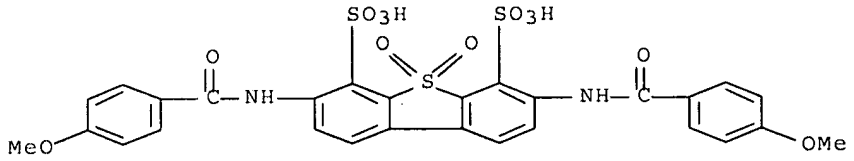
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 900803		19620711	GB 1959-36877	19591030
PRIORITY APPLN. INFO.:			US	19581103

AB A durable antibacterial finish can be applied to cellulosic textiles by treatment with neomycin B, neomycin C, and salts of the neomycin complex. The yellowness or dullness which usually appears upon laundring of neomycin (I)-treated fabricscan be counteracted by application of optical bleaching agents. Agents applicable to cellulosic textiles are acyldiaminostilbenes, triazinyldiaminostilbenes, and acyldiaminodibenzothiophene dioxides, all of which contain sulfonic acid groups. Other brighteners which can be used are the all-purpose types, such as benzimadazoles and triazoles. The treating soln. preferably a pad bath, contg. both I and the bleaching agent can be prepd. without copptn. of the ingredients by addn. of an alk. agent, such as NaOH or KOH, to the soln. The fabric is padded through the bath and dried at 150-350.degree.F. The concn. of I m the soln. can be varied within wide limits depending upon the intended use. When applied by padding, the soln. should contain 0.001-1% by wt. of I, and the same concn. of bleaching agent, preferably 0.01-0.05% of the dry wt. of the material.
IT 103006-30-0P, 4,6-Dibenzothiophenedisulfonic acid,

3,7-di-p-anisamido-, 5,5-dioxide
RL: PREP (Preparation)
(bleaching of neomycin-treated textiles by)

RN 103006-30-0 CAPLUS

CN 4,6-Dibenzothiophenedisulfonic acid, 3,7-di-p-anisamido-, 5,5-dioxide (7CI) (CA INDEX NAME)



L8 ANSWER 21 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1951:40188 CAPLUS Full-text

DOCUMENT NUMBER: 45:40188

ORIGINAL REFERENCE NO.: 45:6845c-g

TITLE: Relation between constitution and tinctorial properties of substantive azoic dyes

AUTHOR(S): Krepelka, V.; Rais, J.

CORPORATE SOURCE: Prague Polytech. Inst.

SOURCE: Collection of Czechoslovak Chemical Communications (1950), 15, 412-32
CODEN: CCCCAK; ISSN: 0010-0765

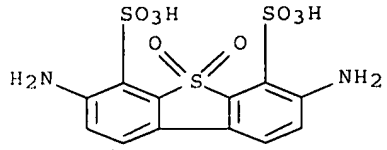
DOCUMENT TYPE: Journal

LANGUAGE: French

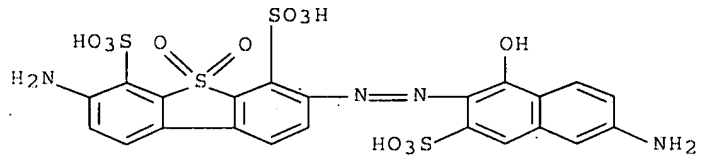
AB The substantivity (fs) and tinctorial power (v) to cotton of the following azoic dyestuffs have been detd. Main Component, .lambda.max.m.mu., emax., fs, v; aniline, 480, 38,275, 17.6, 0.64; 4,4'-diaminodiphenylamine, 525, 44,850, 36.55, 1.36; 4,4'-diaminodiphenylmethane, 497, 34,500, 22.45, 0.834; benzidine, 527.5, 40,350, 39.0, 1.42; 3,3'-dichlorobenzidine, 520, 47,000, 33.4, 1.33; benzidine-3,3'-disulfonic acid, 515, 94,000, 25.0, 1.17; benzidine-2,2'-disulfonic acid, 502.5, 78,600, 10.54, 0.474; benzidine sulfone, 540, 32,930, 19.9, 0.787; benzidine sulfone-3,3'-disulfonic acid, 540, 55,850, 14.31, 0.712; diamino-2,2'-stilbenedisulfonic acid, 532, 82,800, 42.1, 2.015; p-phenylenediamine (monoazo deriv.), 510, 15,610, 25.25, 0.96; p-phenylenediamine (bisazo deriv.), 515, 43,300, 32.2, 1.05; p,p'-diaminodiphenylurea, 491, 40,200, 33.15, 1.302; 2,2'-dinitro-4,4'-diaminodiphenyl-methane, 497, 27,350, 12.2, 0.508; .omicron.-aminophenol, 500, 25,600, 20.6, 0.785; 3,3'-diamino-4,4'-dihydroxydiphenyl-methane, 495, 42,600, 26.75, 1.035; 3-aminosalicylic acid, 505, 34,500, 13.5, 0.604; 3,3'-diamino-5,5'-methylenedisalicylic acid, 502, 64,300, 18.55, 0.84; The dyestuffs were prepd. by coupling the diazotized main component with 6-amino-1-naphthol-3-sulfonic acid. Substantivities were assigned numerical values and were detd. spectrophotometrically, titration with Ti salts, and colorimetrically. The following general rules were proposed for a bisazo dyestuff to be substantive: (1) the mol. wt. must be fairly high, (2) at least 2 auxochromes must be linked by a long chain of conjugated double bonds (at least 8), (3) free rotation of aromatic nuclei must be possible (thus dyestuffs from benzidine-2,2'-disulfonic acid are acid dyestuffs which dye wool), (4) usually the dyestuff should not be a deriv. of a p,p'-diamine, (5) neg. substituents decrease the substantivity.

IT 80-76-2, 4,6-Dibenzothiophenedisulfonic acid, 3,7-diamino-, 5,5-dioxide
(azo dyes from)

RN 80-76-2 CAPLUS
CN 4,6-Dibenzothiophenedisulfonic acid, 3,7-diamino-, 5,5-dioxide (8CI, 9CI) (CA INDEX NAME)



IT 858426-96-7, 4,6-Dibenzothiophenedisulfonic acid, 3-amino-7-(6-amino-1-hydroxy-3-sulfo-2-naphthylazo)-, 5,5-dioxide
(spectrum of)
RN 858426-96-7 CAPLUS
CN 4,6-Dibenzothiophenedisulfonic acid, 3-amino-7-(6-amino-1-hydroxy-3-sulfo-2-naphthylazo)-, 5,5-dioxide (5CI) (CA INDEX NAME)



L8 ANSWER 22 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1940:15386 CAPLUS Full-text
DOCUMENT NUMBER: 34:15386
ORIGINAL REFERENCE NO.: 34:2368g-i,2369a-i
TITLE: Dibenzofuran. XV. 1,4- and 1,4,6-Derivatives
AUTHOR(S): Gilman, Henry; Cheney, Lee C.
SOURCE: Journal of the American Chemical Society (1939), 61, 3149-56
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB Incidental to studies concerned with the bridging of the 1- and 9-positions in dibenzofuran types, series of 1,4- and 1,4,6-derivs. have been synthesized. In these compds. the 4- and 4,6-substituents are strong o,p-directors. 4-Hydroxy-6-methoxydibenzofuran (I) with HBr in AcOH gives 91.6% of 4,6-dihydroxydibenzofuran (II), m. 200-2.degree.. II (0.115 mol), 0.345 mol of Me2SO4, 39 mL. of 60% KOH and Me2CO give a nearly quant. yield of 4,6-dimethoxydibenzofuran (III), m. 128-9.degree.; picrate, deep yellow, m. 161-2.degree.. III and AcCl with AlCl3 in PhNO2 give 60% of the 1-Ac deriv. (IV), m. 178.5-9.5.degree.. The oxime of IV, m. 203-4.degree., with PCl5 in C6H6 gives 76.4% of 1-acetamino-4,6- dimethoxydibenzofuran, m. 244-5.degree.; hydrolysis gives the HCl salt, m. 286-7.degree., of the 1-NH2 deriv. (V) of III, m. 162-2.5.degree.. I (4.28 g.) in 15 mL. 15% KOH and 385 mL. H2O, treated with the PhN2Cl from 0.02 mol PhNH2 at 3.degree., gives 56.6% of 1-benzeneazo-4-hydroxy-6- methoxydibenzofuran, rust-colored, m. 175.degree.; Me2SO4 and KOH in Me2CO give 88% of the 4,6-di-MeO deriv., deep orange, m. 170.degree.; redn. gives 32.8% of V. 4-Methoxydibenzofuran (VI) and 10%

excess of (COCl)2 in PhNO2, treated with 10% excess AlCl3 at 0.degree. and allowed to stand at room temp. for 28 h., give a mixt. of 3 products; extn. of the amorphous product with 5% NaOH gives 4-methoxy-1-dibenzofurancarboxylic acid, m. 276-7.degree.; the alkali-insol. solid, extd. with AcOH, gives 18% of bis(4-methoxy-1-dibenzofuryl) ketone, m. 234.degree.; the AcOH-insol. portion is bi(4-methoxy-1-dibenzofuroyl), pale yellow, m. 329.degree., 34.6% yield. VI and ClCH2COCl with AlCl3 in PhNO2 give 53.2% of the 1-chloroacetyl deriv., m. 165-6.degree.; ClCOCO2Et gives 43% of the 1-ethoxalyl deriv., m. 113.degree.; hydrolysis with 15% NaOH gives 4-methoxy-1-dibenzofuryl-.alpha.-oxoacetic acid, pale yellow, m. 187.degree. (semicarbazone, m. 211.5-12.degree. (decompn.)). III (4.56 g.) and (COCl)2 with AlCl3 in PhNO2 give 0.37 g. 4,6-dimechoxy-1- dibenzofurancarboxylic acid, m. 297-8.degree.; 10.4% of bis(4,6-dimethoxy-1-benzofuryl) ketone, m. 254-5.degree., sol. in AcOH, and 60.7% of bi(4,6-dimethoxy-1-dibenzofuroyl), pale yellow, m. above 300.degree., insol. in AcOH. 3-Hydroxy-4-methoxydibenzofuran (VII) and HBr in AcOH give 88% of 3,4-dihydroxydibenzofuran (VIII), m. 164-4.5.degree.; di-Ac deriv., m. 104-5.degree.. VII and Me2SO4 with 10% NaOH give 81% of the 3,4-di-Me ether (IX), m. 60-1.degree.. IX and AcCl give 55.5% of the 1-Ac deriv. (X), m. 90.5-1.degree.. The oxime of X, m. 156-7.degree., is rearranged by PCl5 in C6H6 to give 94% of 1-acetamino-3,4-dimethoxydibenzofuran, m. 156-7.degree.; hydrolysis gives 1-amino-3,4-dimethoxydibenzofuran, m. 162.5-3.degree., which also results in 10% yield on heating the 1-Br deriv. of IX with concd. NH4OH and CuBr for 14.5 h. at 220-30.degree.. III (22.8 g.) in 600 mL. AcOH and 100 mL. of M Br soln. in AcOH give 73% of the 1-Br deriv., m. 152.degree., and 12% of a product m. 144-7.degree.; III (3 g.) and 52.7 mL. of a 0.5 M Br-AcOH soln. give 74% of the 1,9-di-Br deriv. (XI), m. 167-8.degree.. II gives a nearly quant. yield of the 1,9-di-Br deriv., m. 239-40.degree. (decompn.); Me2SO4 gives XI. I gives 58.6% of the 1,3-di-Br deriv., m. 177-8.degree.; Me2SO4 gives the 1,3-di-Br deriv. of III, m. 173.5-4.degree.. IX forms 88.5% of the 1-Br deriv., m. 108.degree.; VII yields 54.6% of the 1-Br deriv., m. 161-2.degree., which was also prepd. from 1-bromo-3-amino-4-methoxydibenzofuran through the diazo reaction in 21% yield. 4-Bromo-6-methoxydibenzofuran (XII) and HI (d. 1.67) give 19% of the 6-HO analog, m. 138-9.degree.; FeCl3 gives a green color. XII, CuBr and NH4OH, heated in a steel bomb for 10 h. at 100.degree. and for 8 h. at 215.degree., give 51% of the HCl salt, m. 235-6.degree., of 4-amino-6-methoxydibenzofuran, m. 109.degree.; HBr in AcOH gives the 6-HO analog, m. 191.5-2.5.degree.. II, NaHSO3 and concd. NH4OH, heated at 185-95.degree. for 20 h., give 81% of 4,6-diaminodibenzofuran, m. 152.degree.; HCl salt, m. 298.degree. (decompn.); picrate, red-brown, m. 213.degree. (decompn.); di-Ac deriv., m. 297-8.degree.. Di-Ac deriv. of II, m. 177.degree.. II and PhN2Cl give a dark brown compd., m. 228.degree. (decompn.), which is nearly pure 1,3,9-trisbenzeneazo deriv.; Me2SO4 gives 77% of 1,3,9-trisbenzeneazo-4,6-dimethoxydibenzofuran, red-orange, m. 191-3.degree.. The 1-Ac deriv. of III, oxidized with I-KI in NaOH-dioxane, gives 55.2% of 4,6-dimethoxy-1-dibenzofurancarboxylic acid (XIII), m. 297-8.degree.; this also resulted from carbonation of the Grignard reagent of the 1-Br deriv. of II; Me ester, m. 163.degree.. XIII gives an acid chloride, m. 147-50.degree.; CH2N2 gives 21.2% of diazomethyl 4,6-dimethoxy-1-dibenzofuryl ketone, pale yellow, m. 151.degree. (decompn.); heating the ketone with concd. NH4OH and AgNO3 in dioxane gives 52% of the amide, m. 210-11.degree., of 4,6-dimethoxy-1- dibenzofurylacetic acid, m. 205.5-6.5.degree.. 3-Aminodibenzofuran, diazotized and reduced with SnCl2, gives 87.3% of the HCl salt, m. 242-3.degree., of 3-hydrazinodibenzofuran, pale yellow, m. 174-5.degree., which turns orange in the atm. 4-Aminodibenzofuran in abs. EtOH, reduced by Na in a N atm., gives 62% of 1,2,3,4-tetrahydro-6-aminodibenzofuran, which is an oil at 0.degree.; HCl salt, pink, m. 228.degree. (decompn.); the diazo soln. with .beta.-C10H7OH gives a quant. yield of a brilliant carmine red dye, m. 199-201.degree..

IT 854394-18-6P, 4-Dibenzofuranol, 6-methoxy-1-phenylazo-
854394-30-2P, 4-Dibenzofuranol, 6-amino- 854395-25-8P,

1-Dibenzofuranamine, 4,6-dimethoxy-, -HCl 854395-26-9P,
1-Dibenzofuranamine, 4,6-dimethoxy- 854395-40-7P,
4,6-Dibenzofurandiol, 1,3,9-tris(phenylazo)- 854396-02-4P,
4-Dibenzofuranamine, 6-methoxy-, -HCl 854396-03-5P,
4-Dibenzofuranamine, 6-methoxy- 854396-65-9P, Dibenzofuran,
4,6-dimethoxy-1,3,9-tris(phenylazo)- 854396-67-1P, Dibenzofuran,
4,6-dimethoxy-1-phenylazo- 854397-18-5P, Dibenzofuran,
1-acetamido-4,6-dimethoxy-
RL: PREP (Preparation)
(prepn. of)

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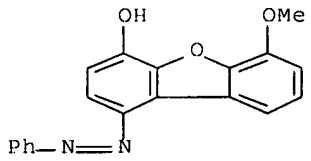

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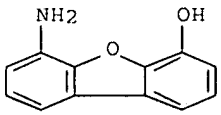

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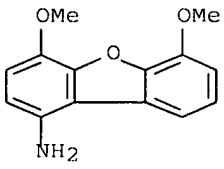

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RN 854395-26-9 CAPLUS
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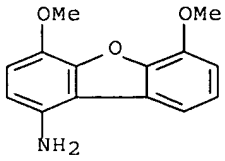

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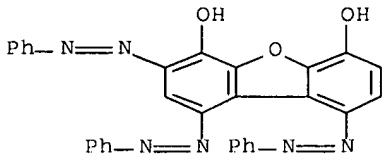

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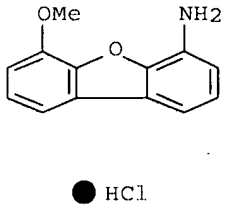

RN 854396-03-5 CAPLUS
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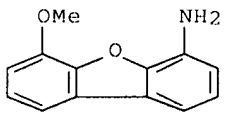

RN 854396-65-9 CAPLUS
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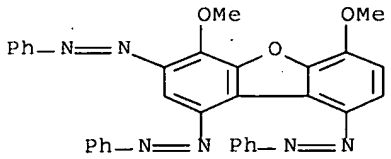

RN 854396-67-1 CAPLUS
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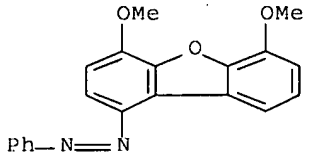

RN 854397-18-5 CAPLUS
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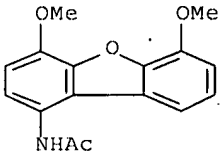

L8 ANSWER 23 OF 23 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1939:29848 CAPLUS Full-text
DOCUMENT NUMBER: 33:29848
ORIGINAL REFERENCE NO.: 33:4238b-f
TITLE: Dibenzofuran. X. Aminohydroxy derivatives
AUTHOR(S): Gilman, Henry; Jacoby, Arthur L.; Swislowsky, Jack
SOURCE: Journal of the American Chemical Society (1939), 61, 954-6
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB 4-Acetaminodibenzofuran and HNO3 (d. 1.49) in Ac2O at -10.degree. give 35% of the Ac deriv. (I), pale yellow, m. 238.degree., of 3-nitro-4-aminodibenzofuran (II), deep yellow, m. 185-6.degree.. Catalytic redn. of I gives a quant. yield of 3-amino-4-acetaminodibenzofuran, silvery plates, m. 236-7.degree.; di-Ac deriv., m. 257.degree.. Redn. of II with Raney Ni and reaction with phenanthraquinone give dibenzo[a,c]benzofuro[2,3- h]phenazine, yellow, m. 277-8.degree.. 4-Hydroxydibenzofuran (III) and HNO3 in AcOH at -12.degree. give 25% of the 3-NO2 deriv. (IV), light yellow, m. 193.degree.; this also results from II through the diazo reaction. IV and CH2N2 give 65% of the 4-MeO deriv., yellow, m. 129.5.degree.. Nitration of III with concd. HNO3 in AcOH at 60.degree. gives 77% of the 3,8-di-NO2 deriv. (V), orange-red, m. 225.degree. (decompn.); this also results in a nearly quant. yield from IV.

V and CH2N2 give 83% of 3,8-dinitro-4-methoxydibenzofuran, orange, m. 177.degree.. The 2-isomer of III yields 80% of a yellow di-NO2 deriv., m. 240.degree. (decompn.), which is probably the 3,8-deriv. 4-Methoxydibenzofuran and HNO3 in Ac2O at -15.degree. to -20.degree. give 18% of the 1-NO2 deriv., m. 155.degree.; 1-NH2 deriv., pale lavender, m. 104.degree., which also results from 1-bromo-4-methoxydibenzofuran and concd. NH4OH with CuBr at 230-40.degree.. 4-Ethoxydibenzofuran gives 28% of the 1-NO2 deriv., yellow, m. 135-5.5.degree.; 1-NH2 deriv., m. 91.degree. (Ac deriv., m. 218.5.degree.). 3-Aminodibenzofuran, EtI, Na2CO3 and H2O, refluxed 48 h., give 70% of 3-diethylaminodibenzofuran, m. 68.degree..

IT 854394-20-0P, 4-Dibenzofuranol, 3,8-dinitro- 854396-46-6P , Dibenzofuran, 4-methoxy-3,8-dinitro-
RL: PREP (Preparation)
(prepn. of)

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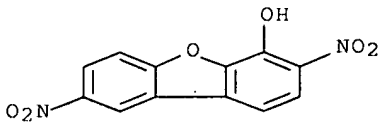

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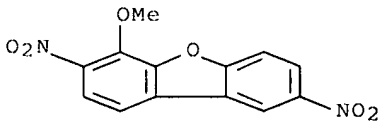

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FULL ESTIMATED COST	118.63	292.74
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10/821,642K-RCE Yong Chu 1/11/2007

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NEWS 2		"Ask CAS" for self-help around the clock
NEWS 3	OCT 23	The Derwent World Patents Index suite of databases on STN has been enhanced and reloaded
NEWS 4	OCT 30	CHEMLIST enhanced with new search and display field
NEWS 5	NOV 03	JAPIO enhanced with IPC 8 features and functionality
NEWS 6	NOV 10	CA/CAplus F-Term thesaurus enhanced
NEWS 7	NOV 10	STN Express with Discover! free maintenance release Version 8.01c now available
NEWS 8	NOV 20	CAS Registry Number crossover limit increased to 300,000 in additional databases
NEWS 9	NOV 20	CA/CAplus to MARPAT accession number crossover limit increased to 50,000
NEWS 10	DEC 01	CAS REGISTRY updated with new ambiguity codes
NEWS 11	DEC 11	CAS REGISTRY chemical nomenclature enhanced
NEWS 12	DEC 14	WPIDS/WPINDEX/WPIX manual codes updated
NEWS 13	DEC 14	GBFULL and FRFULL enhanced with IPC 8 features and functionality
NEWS 14	DEC 18	CA/CAplus pre-1967 chemical substance index entries enhanced with preparation role
NEWS 15	DEC 18	CA/CAplus patent kind codes updated
NEWS 16	DEC 18	MARPAT to CA/CAplus accession number crossover limit increased to 50,000
NEWS 17	DEC 18	MEDLINE updated in preparation for 2007 reload
NEWS 18	DEC 27	CA/CAplus enhanced with more pre-1907 records
NEWS 19	JAN 08	CHEMLIST enhanced with New Zealand Inventory of Chemicals

NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

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FILE 'HOME' ENTERED AT 07:28:35 ON 11 JAN 2007

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FULL ESTIMATED COST	0.21	0.21

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DICTIONARY FILE UPDATES: 9 JAN 2007 HIGHEST RN 917076-17-6

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http://www.cas.org/ONLINE/UG/regprops.html

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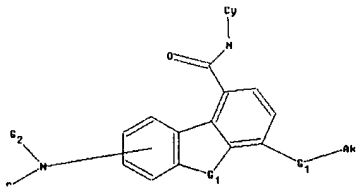

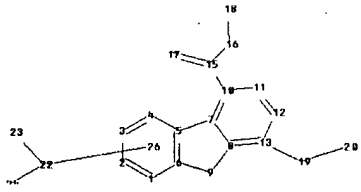

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ring bonds :
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exact/norm bonds :
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normalized bonds :
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G1:O,S

G2:C,Q

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 15:CLASS 16:CLASS 17:CLASS 18:Atom 19:Atom 20:CLASS
22:CLASS 23:CLASS
24:CLASS 26:Atom

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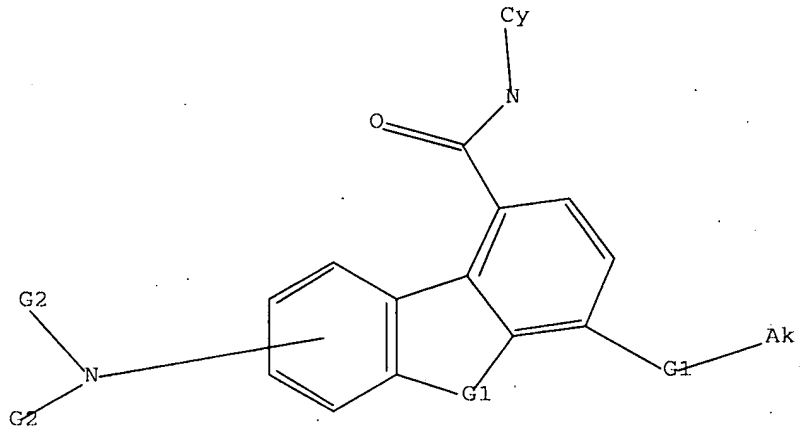
L1 STR



G1 O,S
G2 C,Q

Structure attributes must be viewed using STN Express query preparation.

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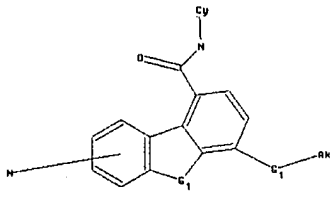

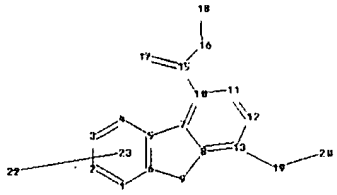

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ring bonds :
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exact/norm bonds :
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G1:O,S

Match level :
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11:Atom 12:Atom 13:Atom 15:CLASS 16:CLASS 17:CLASS 18:Atom 19:Atom 20:CLASS
22:CLASS 23:Atom

L2 STRUCTURE UPLOADED

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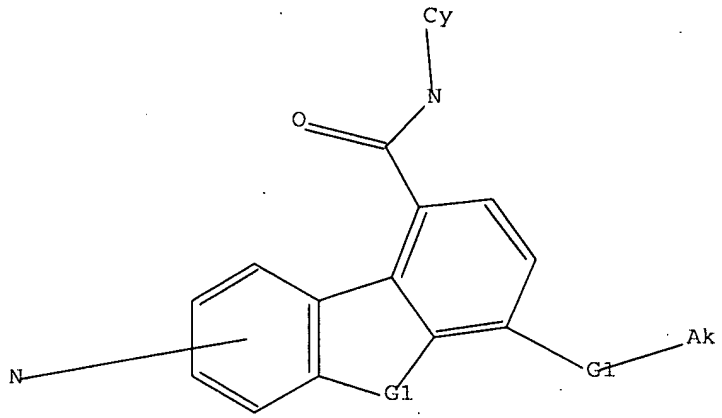
L2 HAS NO ANSWERS
L2 STR



G1 O,S

Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SCREEN SEARCH COMPLETED -      131 TO ITERATE

100.0% PROCESSED      131 ITERATIONS                                4 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:         1934 TO     3306
PROJECTED ANSWERS:               4 TO      200

L3             4 SEA SSS SAM L2

=> s l2 full
FULL SEARCH INITIATED 07:30:32 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -     2760 TO ITERATE

100.0% PROCESSED     2760 ITERATIONS                               69 ANSWERS
SEARCH TIME: 00.00.01

L4            69 SEA SSS FUL L2

=> file caplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                               173.00     173.21

FILE 'CAPLUS' ENTERED AT 07:30:38 ON 11 JAN 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE COVERS 1907 - 11 Jan 2007 VOL 146 ISS 3
FILE LAST UPDATED: 10 Jan 2007 (20070110/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/infopolicy.html

=> s l4
L5 4 L4

=> d ibib abs hitstr tot

Not ODP.
① Method for preparing
② intermediate.

L5 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:361248 CAPLUS Full-text
DOCUMENT NUMBER: 144:412351
TITLE: Process for the preparation of n-(3,5-dichloropyridin-4-yl)-4-difluoromethoxy-8-methanesulfonamido-dibenzo[b,d]furan-1-carboxamide
INVENTOR(S): Gopalan, Balasubramanian; Gharat, Laxmikant Atmaram; Chandrasekhar, Batchu; Karaunakaran, Usha; Pillai, Bijukumar Gopinathan
PATENT ASSIGNEE(S): Glenmark Pharmaceuticals S.A., Switz.
SOURCE: PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

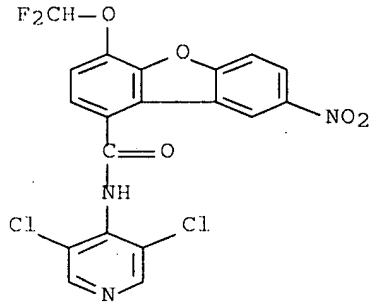
PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2006040652	A2	20060420	WO 2005-IB3035		20051012
WO 2006040652	A3	20061026			
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
US 2006135779	A1	20060622	US 2005-251567		20051013
PRIORITY APPLN. INFO.:			US 2004-618474P	P	20041013
			IN 2004-MU1099	A	20041014
			US 2004-621981P	P	20041021

AB The present invention relates to a method of prepg. N-(3,5-dichloropyridin-4-yl)-4-difluoromethoxy-8-methanesulfonamido-dibenzo[b,d]furan-1-carboxamide

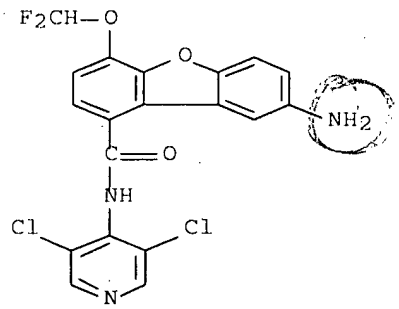
and pharmaceutically acceptable salts thereof, such as its sodium salt, and novel intermediate compds. useful in the synthesis of the aforementioned compd. For example, reaction of 4-cyclopentyloxy-3- hydroxybenzaldehyde with 2-bromo-1-fluoro-4-nitrobenzene (70-77%), followed by cyclization, gave 4-cyclopentyloxy-8-nitro-1- formyldibenzofuran in 60-65% yield, which yielded the title compd. after 9 steps.

IT 685875-02-9P 685875-03-0P, N-(3,5-Dichloropyridin-4-yl)-4-difluoromethoxy-8-aminodibenzo[b,d]furan-1-carboxamide 778576-62-8P, N-(3,5-Dichloropyridin-4-yl)-4-difluoromethoxy-8-[(methylsulfonyl)amino]dibenzo[b,d]furan-1-carboxamide
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of n-(3,5-dichloropyridin-4-yl)-4-difluoromethoxy-8-methanesulfonamido-dibenzo[b,d]furan-1-carboxamide)

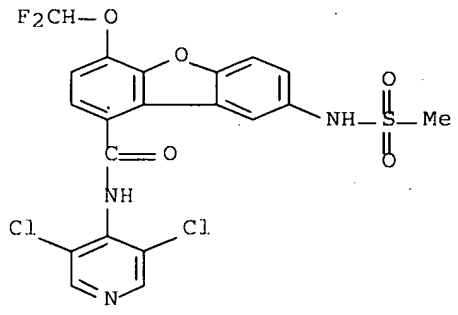
RN 685875-02-9 CAPLUS
CN 1-Dibenzofurancarboxamide, N-(3,5-dichloro-4-pyridinyl)-4-(difluoromethoxy)-8-nitro- (9CI) (CA INDEX NAME)



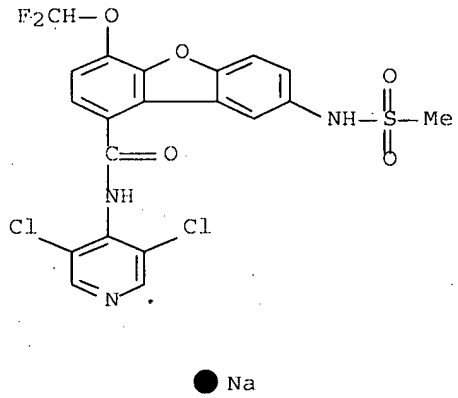
RN 685875-03-0 CAPLUS
CN 1-Dibenzofurancarboxamide, 8-amino-N-(3,5-dichloro-4-pyridinyl)-4-(difluoromethoxy)- (9CI) (CA INDEX NAME)



RN 778576-62-8 CAPLUS
CN 1-Dibenzofurancarboxamide, N-(3,5-dichloro-4-pyridinyl)-4-(difluoromethoxy)-8-[(methylsulfonyl)amino]- (9CI) (CA INDEX NAME)



IT 778576-63-9P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of n-(3,5-dichloropyridin-4-yl)-4-difluoromethoxy-8-methanesulfonamido-dibenzo[b,d]furan-1-carboxamide)
RN 778576-63-9 CAPLUS
CN 1-Dibenzofurancarboxamide, N-(3,5-dichloro-4-pyridinyl)-4-(difluoromethoxy)-8-[(methylsulfonyl)amino]-, monosodium salt (9CI) (CA INDEX NAME)



Na

L5. ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

Current app.

ACCESSION NUMBER: 2005:99226 CAPLUS Full-text
DOCUMENT NUMBER: 142:197859
TITLE: Preparation of dibenzo[b,f]furan-1-carboxamides, 9H-carbazole-4-carboxamides, and dibenzo[b,d]thiophene-4-carboxamides as PDE4 inhibitors for the treatment of inflammatory and allergic disorders
INVENTOR(S): Gopalan, Balasubramanian; Gharat, Laxmikant A.; Lakdawala, Aftab D.; Karunakaran, Usha
PATENT ASSIGNEE(S): Glenmark Pharmaceuticals, Inc. USA, USA
SOURCE: U.S. Pat. Appl. Publ., 59 pp., Cont.-in-part of Appl. No. PCT/IB04/000355.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005027129	A1	20050203	US 2004-821642	20040409
WO 2004089940	A1	20041021	WO 2004-IB355	20040211

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:		
IN 2003-MU363	A	20030411
US 2003-519967P	P	20031113
WO 2004-IB355	A2	20040211

OTHER SOURCE(S): MARPAT 142:197859
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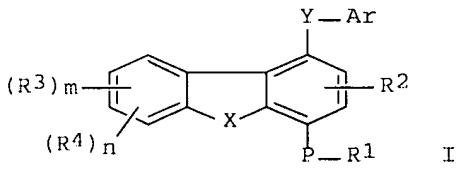

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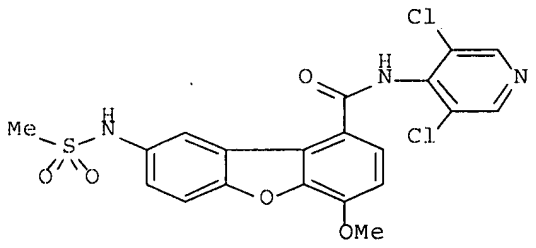


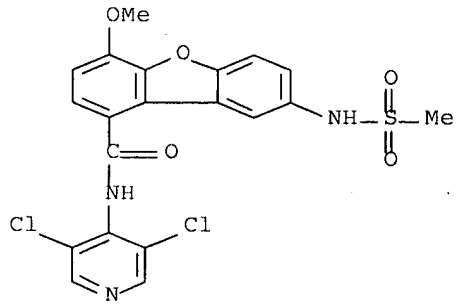
II

AB Title heterocyclic tricycles I [wherein R1-R3, R5, R6, Ra = independently H, (un)substituted (cyclo)alkyl, (cyclo)alkenyl, alkynyl, (hetero)aryl, heterocyclyl(alkyl), etc.; R4 = NR5R6 (R5, R6 = H, alkyl, cycloalkyl, etc.), heterocyclyl; Ar = (un)substituted aryl(alkyl), heterocyclyl, heteroaryl; X = O, SO0-2, NRa; Y = CONR7, NR7SO0-2, SO0-2NR7, NR7CO; R7 = H, OH, ORa, (un)substituted alkyl, aryl, heterocyclyl; P = O, S; m = 0-3; n = 1-4; Ra = H, alkyl, cycloalkyl, etc.; and tautomers, regioisomers, stereoisomers, enantiomers, diastereomers, polymorphs, N-oxides, pharmaceutically acceptable salts, solvates, and compns. thereof] were prepd. as phosphodiesterase type 4 (PDE4) inhibitors. For example, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-aminodibenzo[b,f]furan-1- carboxamide (prepd. in six steps from isovanillin, 4-fluoronitrobenzene, and 4-amino-3,5-dichloropyridine) was coupled with methanesulfonyl chloride in THF and pyridine to give the sulfonamide II. The latter inhibited the PDE4-induced conversion of [3H] cAMP to the corresponding

[3H] 5'-AMP with IC50 of 0.5058 nM. Thus, I and their pharmaceutical compns. are useful for the treatment of immune disorders, inflammatory conditions, allergic conditions, CNS diseases, and insulin resistant diabetes (no data).

IT 778576-34-4P, N-(3,5-Dichloropyridin-4-yl)-4-methoxy-8-[(methylsulfonyl)amino]dibenzo[b,d]furan-1-carboxamide 778576-37-7P, N-(3,5-Dichloropyridin-4-yl)-4-methoxy-8-acetamidodibenzo[b,d]furan-1-carboxamide 778576-41-3P, N-(3,5-Dichloropyridin-4-yl)-4-methoxy-8-[(hydroxycarbonylcarbonyl)amino]dibenzo[b,d]furan-1-carboxamide 778576-42-4P, N-(3,5-Dichloropyridin-4-yl)-4-methoxy-8-[(ethoxycarbonylcarbonyl)amino]dibenzo[b,d]furan-1-carboxamide 778576-49-1P, N-(3,5-Dichloropyridin-4-yl)-4-methoxy-8-[(phenoxycarbonyl)amino]dibenzo[b,d]furan-1-carboxamide 778576-54-8P, N-(3,5-Dichloropyridin-4-yl)-4-methoxy-8-[[(N-methylpiperazin-4-yl)carbonyl]amino]dibenzo[b,d]furan-1-carboxamide 778576-62-8P, N-(3,5-Dichloropyridin-4-yl)-4-difluoromethoxy-8-[(methylsulfonyl)amino]dibenzo[b,d]furan-1-carboxamide 778576-66-2P, N-(3,5-Dichloropyridin-4-yl)-4-difluoromethoxy-8-acetamidodibenzo[b,d]furan-1-carboxamide 778576-69-5P, N-(3,5-Dichloropyridin-4-yl)-4-difluoromethoxy-8-[(ethoxycarbonylcarbonyl)amino]dibenzo[b,d]furan-1-carboxamide 778576-70-8P, N-(3,5-Dichloropyridin-4-yl)-4-difluoromethoxy-8-[(hydroxycarbonylcarbonyl)amino]dibenzo[b,d]furan-1-carboxamide 778576-72-0P, N-(3,5-Dichloropyridin-4-yl)-4-difluoromethoxy-8-[[(fur-2-yl)carbonyl]amino]dibenzo[b,d]furan-1-carboxamide 778576-90-2P, N-(3,5-Dichloropyridin-4-yl)-4-methoxy-8-[[[(2-ethoxy-2-oxoethyl)amino]carbonyl]amino]dibenzo[b,d]furan-1-carboxamide 778576-92-4P, N-(3,5-Dichloropyridin-4-yl)-4-methoxy-8-(2-ethoxy-2-oxoethylamino)dibenzo[b,d]furan-1-carboxamide
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(PDE4 inhibitor; prepn. of tricyclic heterocycles as PDE4 inhibitors for treatment of immune and inflammatory disorders and insulin resistant diabetes)

RN 778576-34-4 CAPLUS
CN 1-Dibenzofurancarboxamide, N-(3,5-dichloro-4-pyridinyl)-4-methoxy-8-[(methylsulfonyl)amino]- (9CI) (CA INDEX NAME)

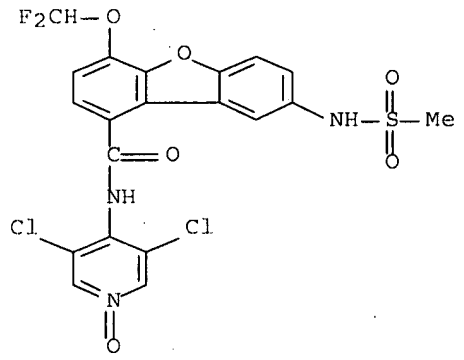


RN 778576-37-7 CAPLUS
CN 1-Dibenzofurancarboxamide, 8-(acetylamino)-N-(3,5-dichloro-4-pyridinyl)-4-methoxy- (9CI) (CA INDEX NAME)

(prepn. of tricyclic heterocycles as PDE4 inhibitors for treatment of immune and inflammatory disorders and insulin resistant diabetes)

RN 836627-26-0 CAPLUS

CN 1-Dibenzofurancarboxamide, N-(3,5-dichloro-1-oxido-4-pyridinyl)-4-(difluoromethoxy)-8-[(methylsulfonyl)amino]- (9CI) (CA INDEX NAME)



Current app.

L5 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:878393 CAPLUS Full-text

DOCUMENT NUMBER: 141:366121

TITLE: Preparation of dibenzo[b,f]furan-1-carboxamides, 9H-carbazole-4-carboxamides, and dibenzo[b,d]thiophene-4-carboxamides as PDE4 inhibitors for the treatment of inflammatory and allergic disorders

INVENTOR(S): Gopalan, Balasubramanian; Gharat, Laxmikant Atmaram; Lakdawala, Aftab Dawoodbhai; Karaunakaran, Usha

PATENT ASSIGNEE(S): Glenmark Pharmaceuticals Ltd., India

SOURCE: PCT Int. Appl., 121 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004089940	A1	20041021	WO 2004-IB355	20040211
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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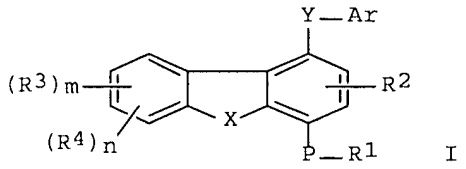
AU 2004228453	A1	20041021	AU 2004-228453	20040211
CA 2522023	A1	20041021	CA 2004-2522023	20040211
EP 1620429	A1	20060201	EP 2004-710093	20040211
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				

BR 2004009747	A	20060509	BR 2004-9747		20040211
CN 1829711	A	20060906	CN 2004-80016048		20040211
JP 2006522789	T	20061005	JP 2006-506259		20040211
US 2005027129	A1	20050203	US 2004-821642		20040409
NO 2005005316	A	20060111	NO 2005-5316		20051110
PRIORITY APPLN. INFO.:			IN 2003-MU363	A	20030411
			US 2003-519967P	P	20031113
			WO 2004-IB355	W	20040211

OTHER SOURCE(S): CASREACT 141:366121; MARPAT 141:366121

GI



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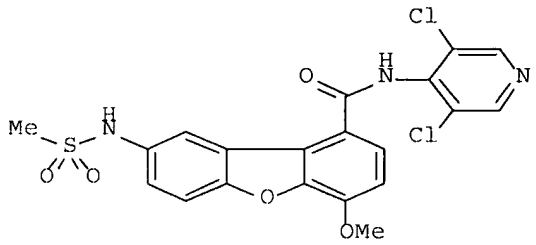
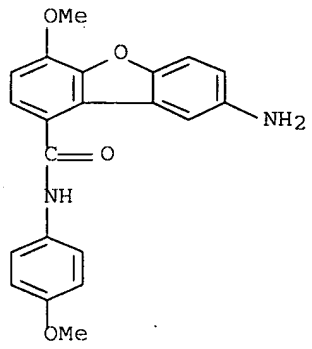


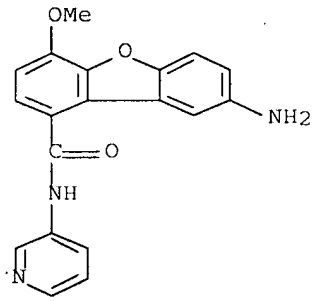
II

AB Title heterocyclic tricycles I [wherein R1-R3, R5, R6, Ra = independently H, (un)substituted (cyclo)alkyl, (cyclo)alkenyl, alkynyl, (hetero)aryl, heterocyclyl(alkyl), etc.; R4 = NR5R6, heterocyclyl; Ar = (un)substituted aryl(alkyl), heterocyclyl, heteroaryl; X = O, SO0-2, NRa; Y = CONR7, NR7SO0-2, SO0-2NR7, NR7CO; R7 = H, OH, ORa, (un)substituted alkyl, aryl, heterocyclyl; P = O, S; m = 0-3; n = 1-4; and tautomers, regioisomers, stereoisomers, enantiomers, diastereomers, polymorphs, N-oxides, pharmaceutically acceptable salts, solvates, and compns. thereof] were prepd. as phosphodiesterase type 4 (PDE4) inhibitors. For example, N-(3,5-dichloropyrid-4-yl)-4-methoxy-8-aminodibenzo[b,f]furan-1- carboxamide (prepd. in six steps from isovanillin, 4-fluoronitrobenzene, and 4-amino-3,5-dichloropyridine) was coupled with methanesulfonyl chloride in THF and pyridine to give the sulfonamide II. The latter inhibited the PDE4-induced conversion of [3H] cAMP to the corresponding [3H] 5'-AMP with IC50 of 0.5058 nM. Thus, I and their pharmaceutical compns. are useful for the treatment of immune disorders, inflammatory conditions, allergic conditions, CNS diseases, and insulin resistant diabetes (no data).

IT 778576-34-4P, N-(3,5-Dichloropyridin-4-yl)-4-methoxy-8-[(methylsulfonyl)amino]dibenzo[b,d]furan-1-carboxamide 778576-37-7P, N-(3,5-Dichloropyridin-4-yl)-4-methoxy-8-acetamidodibenzo[b,d]furan-1-carboxamide 778576-41-3P, N-(3,5-Dichloropyridin-4-yl)-4-methoxy-8-[(hydroxycarbonylcarbonyl)amino]dibenzo[b,d]furan-1-carboxamide 778576-42-4P, N-(3,5-Dichloropyridin-4-yl)-4-methoxy-8-[(ethoxycarbonylcarbonyl)amino]dibenzo[b,d]furan-1-carboxamide 778576-49-1P, N-(3,5-Dichloropyridin-4-yl)-4-methoxy-8-[(phenoxycarbonyl)amino]dibenzo[b,d]furan-1-carboxamide 778576-54-8P, N-(3,5-Dichloropyridin-4-yl)-4-methoxy-8-[[(N-methylpiperazin-4-yl)carbonyl]amino]dibenzo[b,d]furan-1-carboxamide 778576-62-8P, N-(3,5-Dichloropyridin-4-yl)-4-



RN 778576-86-6 CAPLUS
CN 1-Dibenzofurancarboxamide, 8-amino-4-methoxy-N-3-pyridinyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN → Cited.
ACCESSION NUMBER: 2004:370918 CAPLUS Full-text
DOCUMENT NUMBER: 140:391192
TITLE: Preparation of dibenzofuran/dibenzothiophene derivatives useful for the treatment of inflammatory and allergic disorders
INVENTOR(S): Balasubramanian, Gopalan; Gharat, Laxmikant Atmaram; Lakdawala, Aftab Dawoodbhai; Anupindi, Raghu Ram
PATENT ASSIGNEE(S): Glenmark Pharmaceuticals Ltd., India
SOURCE: PCT Int. Appl., 254 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

$R^4 \rightarrow NH_2$ vs $R^4 \rightarrow NR^5R^6$ ↓ present app.

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004037805	A1	20040506	WO 2003-IB4442	20031008

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,

LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,
OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2503015	A1	20040506	CA 2003-2503015		20031008
AU 2003269317	A1	20040513	AU 2003-269317		20031008
EP 1554262	A1	20050720	EP 2003-751096		20031008
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK					
BR 2003014721	A	20050802	BR 2003-14721		20031008
CN 1729181	A	20060201	CN 2003-80107246		20031008
JP 2006506379	T	20060223	JP 2004-546246		20031008
ZA 2005002969	A	20060222	ZA 2005-2969		20050413
US 2006178418	A1	20060810	US 2005-532273		20050926
PRIORITY APPLN. INFO.:			IN 2002-MU922	A	20021023
			WO 2003-IB4442	W	20031008

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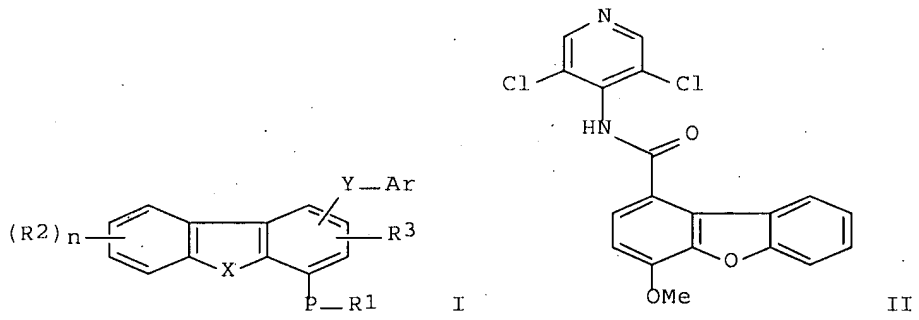
OTHER SOURCE(S): MARPAT 140:391192

GI



AB Title compds. I [R1-3 = H, alk(en/yn)yl, cycloalkyl, etc.; P = O, S; n = 0-4; Ar = (un)substituted aryl, etc.; Y = carboxamido, aminosulfonyl, etc.] are prepd. For instance, 4-methoxydibenzofuran-1-carboxylic acid (prepn. given) is converted to the corresponding acid chloride (PhH, SOCl2, reflux, 4 h) and treated with 4-amino-3,5-dichloropyridine (DMF/THF, NaH, -10.degree.) to give II. II has IC50 = 0.8 nM for PDE4. I are useful for the treatment of inflammatory conditions, diseases of the central nervous and insulin resistant diabetes.

IT 685874-79-7P, N-(3,5-Dichloropyridin-4-yl)-4-methoxy-8-nitrodibenzofuran-1-carboxamide 685875-02-9P, N-(3,5-Dichloropyridin-4-yl)-4-difluoromethoxy-8-nitrodibenzofuran-1-carboxamide 685875-03-0P, N-(3,5-Dichloropyridin-4-yl)-4-difluoromethoxy-8-aminodibenzofuran-1-carboxamide
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. of dibenzofuran/dibenzothiophene derivs. useful for treatment of inflammatory and allergic disorders)

RN 685874-79-7 CAPLUS

CN 1-Dibenzofurancarboxamide, N-(3,5-dichloro-4-pyridinyl)-4-methoxy-8-nitro- (9CI) (CA INDEX NAME)